

NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES

CHAPTER Env-A 1200 PREVENTION, ABATEMENT, AND CONTROL OF STATIONARY SOURCE AIR POLLUTION

Statutory Authority: RSA 125-C:4, RSA 125-C:6, II, XIV, RSA 125-C:11, I, RSA 125-C:12, IV

PART Env-A 1201 RESERVED - This part moved to Env-A 1900

Source. #120, eff 8-31-73; ss by #458; ss by #721.6, eff 12-7-75; amd by #1037, eff 10-15-77; ss by #1717, eff 2-19-81; ss by #2332, eff 4-29-83; ss by #2938, eff 12-27-84; ss by #5033, eff 12-27-90; EXPIRED 12-27-96

New. #6422, INTERIM, eff 1-9-97; EXPIRED 5-9-97

PART Env-A 1202 RESERVED - This part moved to Env-A 2000

Source. #120, eff 8-31-73; ss by #457; ss by #721.4, eff 12-27-75; amd by #1717, eff 2-19-81; ss by #2332, eff 4-29-83; ss by #2939, eff 12-27-84; ss by #5033, eff 12-27-90; EXPIRED 12-27-96

New. #6425, INTERIM, eff 1-9-97; EXPIRED 5-9-97

PART Env-A 1203 - RESERVED - This part moved to Env-A 2100

Source. #120, eff 8-31-73; ss by #464; ss by #721.17, eff 12-27-75; ss by #1347, eff 4-30-79; ss by #1717, eff 2-19-81; ss by #2332, eff 4-29-83; ss by #2938, eff 12-27-84; ss by #5033, eff 12-27-90; EXPIRED 12-27-96

PART Env-A 1204 STATIONARY SOURCES OF VOLATILE ORGANIC COMPOUNDS (VOCs)

Env-A 1204.01 Purpose. The purpose of this part is to describe provisions regarding the implementation of reasonably available control technology (RACT) on certain VOC-emitting sources located in New Hampshire. This is required to comply with sections 172(c)(1) and 182(b)(2) of the Act.

Source. #1376, eff 7-1-79; ss by #1717, eff 2-19-81; ss by #2332, eff 4-29-83; ss by #2459, eff 8-31-83; ss by #2938, eff 12-27-84; amd by #4703, eff 11-16-89; ss by #5033, eff 12-27-90; ss by #5505, eff 11-15-92; ss by #6016, INTERIM, eff 4-14-95, EXPIRED: 8-12-95

New. #6087, eff 8-31-95; ss by #7812, eff 12-31-02

Env-A 1204.02 Scope.

(a) The requirements in Env-A 1204, as effective on January 1, 2003, shall not relieve any source that was subject to Env-A 1204, as effective on August 31, 1995, from its obligation to have been in compliance with applicable rules in the previously effective part.

(b) This part shall apply to processes and devices in the following source categories which have the potential to emit certain amounts of VOC compounds:

- (1) Can coating;
- (2) Paper, fabric, film, or foil substrate coating;

- (3) Vinyl or urethane substrate coating;
- (4) Metal furniture coating;
- (5) Magnetic wire insulation coating;
- (6) Metal coil coating;
- (7) Miscellaneous metal parts and products coating;
- (8) Plastic parts coating;
- (9) Wood furniture, burial caskets, and gunstock coating;
- (10) Rotogravure and flexographic printing;
- (11) Offset lithographic printing;
- (12) Fixed-roof storage tanks;
- (13) External floating roof tanks;
- (14) Bulk gasoline loading terminals;
- (15) Bulk gasoline plants;
- (16) Cutback and emulsified asphalt plants;
- (17) Solvent metal cleaning;
- (18) Miscellaneous stationary VOC sources; and
- (19) Multicategory stationary VOC sources.

(c) Sources with coating, printing, or miscellaneous devices or processes that meet or exceed the relevant RACT applicability criteria in the applicable section within this part, or that are unclassifiable, shall be exempt from the provisions of the applicable compliance section in this part provided that all of the following conditions are met:

- (1) The combined theoretical potential VOC emissions from all process operations:
 - a. Do not exceed the relevant RACT applicability threshold for any consecutive 12-month period; and
 - b. Are subject to an enforceable permit;
- (2) The source has been and remains in full compliance with the conditions of the permit since the date of issuance or the terms of any consent decree entered into by the division or by EPA, or pursuant to any court order;
- (3) The actual VOC emissions of the source, or from all operations associated with the applicable VOC category, have not exceeded the relevant RACT applicability threshold in any calendar year since December 31, 1988, except as specified in (g), below;
- (4) The enforceable permit contains testing provisions as necessary to demonstrate compliance with permit restrictions, pursuant to Env-A 800; and

(5) The enforceable permit contains recordkeeping and reporting provisions as necessary to demonstrate compliance with the permit restrictions, pursuant to Env-A 903, Env-A 904, and Env-A 908, respectively.

(d) Minor core activities of VOCs at a stationary source, having total aggregate emissions of not more than 5 tons per year, combined for all classifiable and unclassifiable processes or devices, shall be exempt from the provisions of this part.

(e) Testing and research activities performed at coating, printing, or miscellaneous sources shall be exempt from the provisions of this part provided that the combined VOC emissions from such activities do not exceed 5 tons per calendar year.

(f) Once a stationary source becomes subject to the specific requirements of a source category listed in (b), above, the source shall remain subject to those requirements even if its emissions later fall below the relevant RACT applicability threshold, except as provided in (g), below.

(g) Any stationary coating, printing, miscellaneous, or multicategory source which has reduced its actual VOC emissions below the RACT applicability threshold prior to May 31, 1995, shall be eligible for exemption from the provision of (f), above, provided that both of the following conditions are met:

(1) The owner or operator can demonstrate that the actual VOC emissions occurring in the consecutive 12-month period after the reduction was implemented are no more than 80% of the relevant RACT applicability threshold; and

(2) The owner or operator accepts an enforceable permit containing restrictions which limit the combined actual VOC emissions, during any 12-month period, from the source, or all process operations associated with a specific classifiable process, below the specified percentage of the RACT applicability threshold.

(h) This part shall also apply to any person who sells or offers for sale any solvent for use in a cold cleaning machine.

Source. #1376, eff 7-1-79; ss by #1717, eff 2-19-81; ss by #2332, eff 4-29-83; amd by #2381, eff 6-17-83; ss by #2938, eff 12-27-84; amd by #4703, eff 11-16-89; ss by #5033, eff 12-27-90; amd by #5309, eff 1-17-92; ss by #5505, eff 11-15-92; ss by #6016, INTERIM, eff 4-14-95, EXPIRED: 8-12-95

New. #6087, eff 8-31-95; ss by #7812, eff 12-31-02; amd by #8293, eff 2-26-05

Env-A 1204.03 Definitions. For purposes of this part, the following definitions shall apply:

(a) "Actual VOC emissions" means the total VOCs actually emitted by a source, process, or device in a specified time period;

(b) "Actual VOC emission rate" means the mass of VOCs actually emitted by a source, process, or device per unit throughput, where the throughput is stated in terms of either solvent usage or other quantifiable production variable;

(c) "Add-on controls" means equipment or techniques, such as incineration, which is used to collect, remove, and/or destroy organic vapors from a gas stream before the vapors are released into the ambient air;

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(d) "Adhesion promoter" means a coating applied to a plastic substrate to facilitate the adhesion of subsequent coatings;

(e) "As applied" means the VOC and solids content, including any diluent solvents, of the material that is actually used for coating the substrate;

(f) "Asphalt" means a dark-brown to black cementitious solid, semisolid, or liquid, which is predominately comprised of various mixtures of hydrocarbons, including bitumens, crude petroleum, or tars, which occur naturally or which are obtained as residues from refining petroleum;

(g) "Asphalt cement" means asphalt that is refined to meet specifications for paving and industrial purposes;

(h) "Automotive" means that which pertains to roadway vehicles with enclosed driver/passenger compartments, including automobiles, trucks, buses, vans, and limousines;

(i) "Basecoat" means a coat of colored material, usually opaque, that is applied before graining inks, glazing coats, or other opaque finishing materials and is usually topcoated for protection;

(j) "Bubble" means a technique of aggregating certain emissions so as to impose controls that are more stringent than RACT-level on certain emitting units at a particular source, while simultaneously imposing controls that are less stringent than RACT-level on other emitting units, including the option of no controls on such units;

(k) "Bulk gasoline loading terminal" means a gasoline storage facility which:

(1) Receives gasoline from refineries primarily by pipeline, ship, or barge;

(2) Delivers gasoline to bulk gasoline plants, to commercial or retail accounts within or outside New Hampshire, primarily by tank truck; and

(3) Has a daily throughput of 76,000 liters (20,000 gallons) or more of gasoline based on any consecutive 30-day period during the ozone season;

(l) "Bulk gasoline plant" means a gasoline storage and distribution facility with a daily throughput of less than 76,000 liters (20,000 gallons) which receives gasoline from bulk terminals by trailer transport, which gasoline is stored in tanks and subsequently delivered by trucks to local farms, businesses and service stations;

(m) "Business machine" means "business machine" as defined in 40 CFR 60.721(a), namely "a device that uses electronic or mechanical methods to process information, perform calculations, print or copy information, or convert sound into electrical impulses for transmission, such as:

(1) Products classified as typewriters under SIC Code 3572;

(2) Products classified as electronic computing devices under SIC Code 3573;

(3) Products classified as calculating and accounting machines under SIC Code 3574;

(4) Products classified as telephone and telegraph equipment under SIC Code 3661;

(5) Products classified as office machines, not elsewhere classified, under SIC Code 3579; and

(6) Photocopy machines, a subcategory of products classified as photographic equipment under SIC code 3861";

(n) "Capture and control system" means a system to capture and convey VOC emissions released from VOC-emitting devices to add-on control equipment that destroys, recovers, or otherwise removes VOC, to permanently reduce the emission of VOC to the air;

(o) "Classifiable process or device" means any process or device covered under one of the VOC categories listed in Env-A 1204.02;

(p) "Clear coat" means a coating that is transparent and uses the surface to which it is applied as a reflectant base or undertone color;

(q) "Coating" means a protective, decorative, or functional film applied in a thin layer to a surface or impregnated into a substrate. This term includes but is not limited to paints, varnishes, sealants, adhesives, inks, maskants, and temporary protective coatings such as lacquers or enamels and films applied to paper, plastics, or foil;

(r) "Coating line" means a series of one or more apparatus or operations which include a coating applicator, any associated drying area, flash-off area, or oven wherein a surface coating is applied, dried, or cured;

(s) "Cold cleaning" means the batch process of degreasing metal surfaces by spraying, brushing, flushing, or immersion in a cold VOL solvent. Wipe cleaning is not included in this definition;

(t) "Cold VOL solvent" means a VOL solvent maintained below its boiling point during use in solvent metal cleaning;

(u) "Color coat" means a coating that is pigmented to impart a desired color to a product;

(v) "Compliant coating" means a coating material that meets the applicable VOC RACT emission rate standard in this part;

(w) "Condensate" means any VOL, separated from the gas or vapor phase, that condenses due to changes in temperature, pressure, or both and remains liquid at standard conditions;

(x) "Continuous coater" means a finishing system that continuously applies finishing materials onto furniture or burial casket parts moving along a conveyor system, and finishing materials that are not transferred to the part are recycled to the finishing reservoir;

(y) "Conventional air spray" means a spray coating method in which the coating is atomized by mixing it with compressed air at an air pressure greater than 10 pounds per square inch gauge (psig) at the point of atomization;

(z) "Conversion varnish" means a special water-resistant varnish used primarily for wood cabinets and trim installed in kitchens, bathrooms, and other environments where water resistance is important;

(aa) "Conveyorized degreasing" means the continuous process of cleaning and removing soils or grease from metal surfaces by operating a conveyor system with either cold or vaporized VOL solvents;

(ab) "Core activities" means operations which are central to the manufacturing or business of the source and exclude all non-core activities listed in (bp), below;

(ac) "Cutback asphalt" means asphalt cement which has been liquefied by blending with petroleum solvents, which solvents evaporate upon exposure to atmospheric conditions leaving the asphalt cement to perform its function;

(ad) "Determination of insufficiency" means a written determination by the division that the documentation submitted by a source applicant, pursuant to the requirement for a feasibility study of RACT options as required by Env-A 1204.05(a) and (b), is inadequate for the division to issue a RACT order;

(ae) "Determination of sufficiency" means a written determination by the division that the documentation submitted by a source applicant, pursuant to the requirements for a feasibility study of RACT options as required by Env-A 1204.05(a) and (b), is adequate for the division to issue a RACT order;

(af) "Electromagnetic interference (EMI) shielding coating" means a coating used in plastic business machine housing to attenuate electromagnetic signals that would otherwise pass through the plastic housing;

(ag) "Electrostatic prep coating" means a coating that is applied to a plastic part solely to provide conductivity for the subsequent application of a prime coating, a topcoat, or other coating by a spray that uses electrically charged particles, and which is clearly identified as an electrostatic prep coat on its accompanying material safety data sheet;

(ah) "Emulsified asphalt" means an emulsion of asphalt cement and water which contains a small amount of an emulsifying agent, forming a heterogeneous, or normally immiscible, system in which the water forms the continuous phase of the emulsion, and minute globules of asphalt form the discontinuous phase;

(ai) "External floating roof" means a storage vessel cover in an open top tank consisting of a double deck or pontoon single deck which rests upon and is supported by the VOL being contained and is equipped with a closure seal to close the space between the roof edge and tank shell;

(aj) "Fabric coating" means the coating of a textile substrate including, but not limited to, application by impregnation or saturation by the use of a knife, roll, or rotogravure coater to impart properties that are not initially present, such as strength, stability, water or acid repellency, or appearance. The definition of fabric coating does not include fabric printing;

(ak) "Federally-enforceable document" means:

- (1) A federally-approved division rule as defined in 40 CFR 51;
- (2) A permit, license, or order issued by the division pursuant to a federally-approved rule;
- (3) A permit or order issued by the EPA; or
- (4) A regulation promulgated by EPA and codified under 40 CFR 60, 40 CFR 61, or 40 CFR 63;

(al) "Finishing application station" means the part of a finishing operation where the finishing material is applied, such as a spray booth;

(am) "Finishing material" means a coating other than an adhesive. For the wood furniture and burial casket manufacturing industry, such materials include, but are not limited to, basecoats, stains, washcoats, sealers, topcoats, and enamels;

(an) "Finishing operation" means those activities in which a finishing material is applied to a substrate and is subsequently air-dried, cured in an oven, or cured by radiation;

(ao) "Flexible coating" means a coating with the ability to withstand dimensional changes resulting from mechanical or thermal distortion of its substrate;

(ap) "Flexographic printing" means the application of ink in the form of characters, designs, pictures, or any combination thereof to a substrate by means of a roll printing technique in which the pattern to be applied is raised above the printing roll and the image carrier is made of rubber or other elastomeric materials;

(aq) "Freeboard height" means:

- (1) For a cold cleaner, the distance from the liquid solvent level in the degreaser tank to the lip of the tank;
- (2) For an open top vapor degreaser tank, the distance from the solvent vapor level in the tank during idling to the lip of the tank;
- (3) For a conveyORIZED cold degreaser, the distance from the liquid solvent level to the bottom of the entrance or exit opening, whichever is lower; or
- (4) For a conveyORIZED vapor degreaser, the distance from the vapor level to the bottom of the entrance or exit opening, whichever is lower;

(ar) "Freeboard ratio" means a ratio of the freeboard height to the smallest interior dimension, such as length or width, of a degreaser tank;

(as) "Gasoline" means any petroleum distillate or petroleum distillate alcohol blend having a Reid vapor pressure of 27.6 kilopascals (kPa) (4 pounds per square inch (psi)) or greater that is used as a fuel for internal combustion engines;

(at) "Gloss reducer" means a coating formulated to eliminate glare for safety purposes on interior surfaces of a vehicle;

(au) "Gunstock coating" means the surface coating of wooden components of firearms, which components are exposed to the environment and subject to functional handling by the end user;

(av) "High bake coating" means a coating designed to cure at temperatures above 90°C (194°F);

(aw) "Hot VOL solvent" means a VOL solvent maintained above its boiling point during use in solvent metal cleaning;

(ax) "Knife coating" means the application of a coating material to a substrate by means of drawing the substrate beneath a knife or other type of blade that spreads the coating evenly over the entire width of the substrate;

(ay) "Lease custody transfer" means the transfer of produced crude oil or condensate, after processing, treating, or both in the producing operations, from storage tanks or automatic transfer facilities to pipelines or any other forms of transportation;

(az) "Limited at all times" means that the VOC emissions from a source or device, as measured or calculated in accordance with the applicable method(s) and associated averaging times prescribed in Env-A 804, does not exceed the specified emission rate limit for the subject VOC category or subcategory during the RACT-applicable life of the source or device;

(ba) "Lithography" means a planar printing process where the image and non-image areas are chemically differentiated and where the image area is oil receptive and the non-image area is typically water receptive;

(bb) "Low bake coating" means a coating designed to cure at temperatures no higher than 90°C (194°F);

(bc) "Low solvent coating" means coatings which contain less organic solvent than the conventional coatings used by the industry and which include water-borne, higher solids, electro deposition, and powder coatings;

(bd) "Low-VOC emitting process" means a process that results in VOC emission rate reductions equivalent to a RACT level add-on control system;

(be) "Magnetic wire insulation coating" means a coating in which an electrically insulated varnish or enamel is applied onto the surface of wire for use in electrical machinery;

(bf) "Metal coil coating" means the surface coating of any continuous metal strip with thickness of 0.15 millimeter (mm) (0.006 in.) or more that is packaged in a roll or in helical form;

(bg) "Metal degreasing" means the removal of grease, grease-bearing soils, or both from metal surfaces using liquid or vapor means;

(bh) "Metal furniture coating" means the surface coating of any furniture made of metal or any metal part which will be assembled with other metal, wood, fabric, plastic, or glass parts to form a furniture piece;

(bi) "Minor core activity" means any core activity at a stationary source for which the aggregate actual VOC emissions from all processes and devices associated with the activity do not exceed either of the following:

(1) The RACT applicability emissions threshold for any category listed in Env-A 1204.02(b)(1) through (9); or

(2) A total of 5 tons per year;

(bj) "Miscellaneous metal parts coating" means the coating of any metal substrate except for the following products:

(1) Automobiles and light-duty trucks, including automobile refinishing and customized top coating;

(2) Metal cans;

(3) Flat metal sheets and strips in the form of rolls or coils;

(4) Magnet wire for use in electrical machinery;

(5) Metal furniture;

(6) Exterior portions of airplanes; and

(7) Exterior portions of marine vessels;

(bk) "Miscellaneous stationary VOC source" means any stationary source of VOCs which has at least one unclassifiable core process or device but which might also include any number of classifiable core processes or devices;

(bl) "Modified control techniques" means techniques for reducing VOC emissions to the atmosphere that are less stringent than the control techniques prescribed in the applicable section of this part;

(bm) "Modified emission rate limits" means VOC RACT emission rate limits that are less stringent than the limits on actual emission rates prescribed in the applicable section of this part;

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(bn) "Multicategory stationary VOC source" means any stationary source of VOCs which, excluding non-core activities as enumerated in (bp), below, has either:

- (1) At least 2 classifiable processes or devices in dissimilar VOC categories; or
- (2) At least one classifiable process or device and at least one unclassifiable process or device;

(bo) "Non-compliant coating" means a coating material that exceeds the applicable VOC RACT emission rate standard for a category listed in Env-A 1204.02(b)(1) through (9);

(bp) "Non-core activities" means activities conducted at the source that are not directly related to the central manufacturing or business purpose of the source, including but not limited to:

- (1) Use of an office machine, including copying and duplication activities;
- (2) An interior maintenance activity and the devices and supplies used therein, such as:
 - a. Janitorial and general building maintenance;
 - b. Welding, gluing, and soldering related to building and machine maintenance; and
 - c. Painting and cleaning process devices, except:
 1. A VOL metal degreasing operation subject to regulation under this part; or
 2. Any process equipment cleaning or maintenance activity subject to regulation under this part;
- (3) An exterior maintenance activity and the equipment and supplies used therein, such as repainting, roofing, and blasting, and general grounds maintenance, including lawncare; and
- (4) Non-commercial maintenance and operation of non-commercial laboratory and other activities to the extent that such activities are not directly related to the primary production process or commercial business activities normally conducted at the source.

(bq) "Non-flexible coating" means a coating without the ability to withstand dimensional changes and designed for substrates that remain rigid during normal use;

(br) "Normally closed container" means a container that is closed unless an operator is actively engaged in activities such as emptying or filling the container;

(bs) "Offset" means a printing process that transfers the ink film to an intermediary surface, which in turn transfers the ink film to a printing substrate;

(bt) "Open top vapor degreaser" means the batch process for degreasing metal surfaces by condensing hot VOL solvent vapor onto colder metal parts;

(bu) "Ozone season" means the period between May 1 and September 30, inclusive.

(bv) "Paper coating" means:

- (1) Coating of paper or pressure sensitive tape, regardless of substrate material, by means of:
 - a. Direct surface application; or
 - b. Impregnation or saturation by the use of roll, knife, or rotogravure coating;

(2) Coating processes on a continuous roll of plastic film; or

(3) Decorative coatings on metal foil;

(bw) "Plastic part coating" means the surface coating of a component of an end-use product, which component is made from a substance that has been formed from resin through the application of pressure, heat, or both;

(bx) "Prime coating" means the first of 2 or more films of coating applied to a substrate;

(by) "Radio frequency interference (RFI) shielding coating" means a coating used in plastic business machine housing to attenuate radio frequency signals that would otherwise pass through the plastic housing;

(bz) "RACT applicability criteria" means the design, operational, or other characteristics of a source, process, or device which define the conditions at which the source, process, or device becomes subject to the RACT requirements of this part;

(ca) "RACT applicability emissions threshold" means the theoretical potential emissions of VOCs at which a coating, printing, miscellaneous, or multcategory source, process, or device becomes subject to the RACT requirements of this part;

(cb) "RACT-applicable classifiable process or device" means any classifiable process or device meeting the applicability provisions of the relevant VOC category listed in Env-A 1204.02(b)(1) through (19);

(cc) "RACT-applicable miscellaneous stationary VOC source" means any miscellaneous stationary VOC source meeting the applicability criteria of Env-A 1204.48(a);

(cd) "RACT-applicable multcategory stationary VOC source" means any multcategory stationary VOC source meeting the applicability criteria of Env-A 1204.48(a);

(ce) "Refinishing" means the repainting of used equipment;

(cf) "Reflexive argent coating" means a silver-colored coating that will reflect light;

(cg) "Refrigerated chiller" means a device which is mounted above the water jacket and primary condenser coils, consisting of secondary coils which carry a refrigerant to provide a chilled air blanket above the solvent vapor to reduce emissions from the degreaser bath;

(ch) "Resist coating" means a coating that is applied to a plastic part prior to metallic plating to prevent deposits of metal from forming on the part;

(ci) "Roll coating" means the application of a coating material to a substrate by means of hard rubber, elastomeric, or metal rolls;

(cj) "Roll printing" means the application of words, designs, and pictures to a substrate usually by means of a series of rolls each with only partial coverage;

(ck) "Rotogravure coating" means the application of a coating material to a substrate by means of a roll coating technique in which the pattern to be applied is etched on the coating roll, and the coating material is picked up in these recessed areas and is transferred to the substrate;

(cl) "Rotogravure printing" means the application of ink in the form of characters, designs, or pictures to a substrate by means of a roll printing technique in which the image area is recessed relative to the non-image area;

(cm) "Sealer" means a finishing material used to seal the pores of a wood substrate before additional coats of finishing material are applied but does not include special purpose finishing materials that are used in some finishing systems to optimize aesthetics;

(cn) "Soft coating" means any coating that provides a soft tactile feel similar to leather and a rich leather-like appearance when applied to plastic interior automotive parts and exterior business machine parts;

(co) "Solvent" means those volatile organic compounds used in the liquid or vapor form for the removal of soils from fibrous, non-fibrous, woven, non-woven, metallic, and non-metallic articles, materials or surfaces.

(cp) "Solvent metal cleaning" means the process of degreasing metal using cold cleaning, open top vapor, or conveyORIZED degreasing methods;

(cq) "Specialty coating" means a coating used for products required to meet non-standard performance specifications and includes:

- (1) Adhesion primers;
- (2) Resist coatings;
- (3) Soft coatings;
- (4) Reflective coatings;
- (5) Electrostatic prep coatings;
- (6) Headlamp lens coatings;
- (7) Ink pad printing coatings;
- (8) Stencil coatings;
- (9) Vacuum metalizing coatings; and
- (10) Gloss reducers;

(cr) "Stain" means any color coat that is applied in single or multiple coats directly to a wood substrate. The term includes non-grainraising stains, equalizer stains, sap stains, body stains, no-wipe stains, penetrating stains, and toners;

(cs) "Stencil coating" means a coating that is applied over a stencil to a plastic part at a thickness of not more than one mil. of coating solids, generally forming letters, numbers, or decorative designs;

(ct) "Strippable booth coating" means a coating that is:

- (1) Applied to a booth wall to provide a protective film to receive overspray during finishing operations; and
- (2) Subsequently peeled off and disposed;

(cu) "Submerged fill" means the method of filling a delivery tank truck or storage tank where product enters within 150 mm (5.9 inches) of the bottom of the tank truck or storage tank. Bottom filling of delivery tank trucks and storage tanks is included in this definition;

(cv) "Substrate" means the surface onto which a coating is applied or into which a coating is impregnated;

(cw) "Testing and research activities" means activities that are:

(1) Conducted for the purpose of:

- a. Determining product quality or customer acceptance;
- b. Improving product quality; or
- c. Improving an existing process;

(2) Not conducted for the direct manufacture of products for commercial sale; and

(3) Conducted at the same site as the source's core activities;

(cx) "Texture coating" means a coating that is applied to a plastic part which, in its finished form, consists of discrete raised spots of the coating;

(cy) "Theoretical potential VOC emissions" (TPEs) means the emissions of VOCs that would have occurred prior to the application of add-on controls required by a federally enforceable rule or document issued prior to January 1, 1990, based on one of the following:

(1) Continuous operation of 8760 hours per year under maximum production capacity, which for coating and graphic arts sources includes coatings and inks with the highest VOC content used in practice by the source during 1993 and 1994 or the 2-year period most representative of normal production rates; or

(2) Hours of operation, process conditions, or both that are limited by federally enforceable permit conditions;

(cz) "Toner" means a coating applied to wood to minimize color differences on the unfinished wood and to allow the subsequent coating to color the wood evenly;

(da) "Topcoat" means the final film or series of films of coating applied to a substrate in an operation consisting of 2 or more coats;

(db) "Touch-up and repair" means the application of finishing materials to cover minor imperfections;

(dc) "Unclassifiable process or device" means a VOC-emitting process or device which does not meet the definitional criteria of at least one of the categories listed in Env-A 1204.02(b)(1) through (17);

(dd) "Vacuum metallizing" means a process whereby metal is vaporized and deposited on a substrate in a vacuum chamber;

(de) "Vacuum metallizing coating" means a topcoat or basecoat that is used in the vacuum metalizing process;

(df) "Vinyl or urethane substrate coating" means applying a decorative, protective, or functional coating or ink on vinyl or urethane substrates, including vinyl or urethane coated fabric;

(dg) "VOC category" means any process, device, or operation listed in Env-A 1204.02(b)(1) through (17);

(dh) "VOC-emitting device" means any equipment, building, or activity that results in the emission of VOCs, either through a duct or stack or as fugitive emissions;

(di) "VOC subcategory" means any process, device, or operation subordinate to one of the categories listed in Env-A 1204.02(b)(1) through (17), above, for which a VOC RACT standard has been prescribed in the applicable category;

(dj) "Volatile organic compound" (VOC) means any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbonates or carbides, and ammonium carbonate, which participates in atmospheric photochemical reactions and which is not listed in 40 CFR 51.100(s)(1);

(dk) "Volatile organic liquid" (VOL) means any organic liquid which is capable of emitting VOC compounds into the atmosphere;

(dl) "Washcoat" means a transparent special purpose coating that is applied over an initial stain to protect and control color and to stiffen the wood fibers in order to aid sanding and to which a topcoat is applied;

(dm) "Washoff operations" means those operations in which organic solvent is used to remove coating from a substrate;

(dn) "Water jacket" means an outer casing that holds water or through which water circulates to cool the interior;

(do) "Web coating line" means all of the coating applicator(s), drying area(s), or oven(s), located between an unwind station and a rewind station, that are used to apply coating onto a continuous strip of substrate;

(dp) "Wood furniture coating operation" means the surface coating of products that belong to the same wood furniture industrial grouping and which are identified in the North American Industry Classification System Manual, 2002, by the following codes:

- (1) 33711;
- (2) 337215;
- (3) 337121;
- (4) 337129;
- (5) 337125;
- (6) 337211;
- (7) 337127;
- (8) 337212;
- (9) 339111; -
- (10) 337122; and
- (11) 44211; and

(dq) "Working day" means a 24-hour period beginning at 12:00 a.m., or any part of such period, in which a facility is engaged in manufacturing.

Source. #1376, eff 7-1-79; ss by #1717, eff 2-19-81; paragraphs (a)(6) & (c), amd by #1734, eff 3-25-81; ss by #2332, eff 4-29-83; ss by #2938, eff 12-27-84; amd by #4703, eff 11-16-89; ss by #5033, eff 12-27-90; ss by #5505, eff 11-15-92; ss by #6016, INTERIM, eff 4-14-95, EXPIRED: 8-12-95

New. #6087, eff 8-31-95; amd by #7060, eff 7-22-99; ss by #7812, eff 12-31-02; amd by #8293, eff 2-26-05

Env-A 1204.04 Determination of Emissions.

- (a) The determination of TPEs shall include all emissions from core activities.
- (b) The determination of actual emissions for the purpose of determining compliance with the applicable rule or establishing exceptions to applicability, as provided in Env-A 1204.02, shall be as prescribed in Env-A 616.
- (c) For a coating source that uses add-on control equipment or a bubble to achieve compliance, the emission rate limit shall be determined on a solids basis, as specified in (d), below, using the following terms:
 - (1) "S" means the VOC emission rate limit in terms of kg/1 (lb/gal) of coating solids;
 - (2) "d_A" means the actual mass density of VOC in the applied surface coating formulation in terms of kg/1 (lb/gal), but in the case where multiple coatings are used, d_A means the weighted average actual mass density of VOC in the applied surface coatings in terms of kg/1 (lb/gal); and
 - (3) "E_c" means the emission rate limit prescribed for the applicable coating category, subcategory, or process as calculated on a coatings basis, in terms of kg VOC/1 (lb VOC/gal) of coating, as applied to the substrate.
- (d) To calculate the emission rate limit S, the quotient of E_c amd d_A shall be subtracted from one and the result shall be divided into E_c, as in the formula below:

$$S = \frac{E_c}{1 - \left(\frac{E_c}{d_A} \right)}$$

Source. #1376, eff 7-1-79; ss by #1717, eff 2-19-81; ss by #2332, eff 4-29-83; ss by #2938, eff 12-27-84; amd by #4703, eff 11-16-89; ss by #5033, eff 12-27-90; amd by #5309, eff 1-17-92; ss by #5505, eff 11-15-92; ss by #6016, INTERIM, eff 4-14-95, EXPIRED: 8-12-95

New. #6087, eff 8-31-95; ss by #7812, eff 12-31-02

Env-A 1204.05 RACT Order Application.

(a) The following persons shall comply with the applicable provisions of (b), below, and obtain a RACT order from the division in accordance with the provisions of (c), (d), or Env-A 1204.06(a), below, whichever paragraphs are applicable:

- (1) Owners or operators of classifiable and RACT-applicable stationary sources seeking modified VOC RACT emission limits or control technology; and
- (2) Owners or operators of RACT-applicable miscellaneous or multicategory stationary VOC sources seeking RACT compliance by adopting control option 5 as set forth in Env-A 1204.49(a)(5).

(b) The owner or operator of any stationary source meeting the criteria of either (a)(1) or (a)(2), above, shall submit the following to the division:

- (1) An inventory of all VOC-emitting devices and processes at the stationary source not exempt under the applicable provisions of this chapter;
- (2) The TPEs of each VOC-emitting device or process identified pursuant to (b)(1), above;
- (3) The actual amount of VOCs emitted, based on solvent throughput or units of production, from each VOC-emitting device or process at the stationary source not exempt under the applicable provisions of this chapter, for the following time periods:
 - a. Daily average for calendar year 1990, or other year or consecutive 12-month period as required pursuant to (d), below; and
 - b. Daily average during the ozone season for calendar year 1990, or other calendar year as required pursuant to (d), below;
- (4) A study of RACT control options consisting of the following:
 - a. A detailed examination of the technical and economical feasibility of available VOC control techniques, including the technique of using ERCs or DERs as a compliance option, for all VOC-emitting devices or processes not exempt under the applicable provisions of this part; and
 - b. The control option selected, stating emission limits, monitoring, recordkeeping and reporting procedures, and test methods to be used to demonstrate compliance;
- (5) The amount of VOC that is proposed to be controlled from each VOC-emitting device or process identified in (b)(1), above;
- (6) A schedule for implementation, containing the major increments of progress toward compliance, including:
 - a. Completion of engineering;
 - b. Awarding of contract;
 - c. Initiation of construction;
 - d. Completion of construction; and
 - e. Final compliance with emission or control requirements of this part; and

(7) A demonstration of compliance consistent with the requirements of this part.

(c) For any source submitting a RACT order application pursuant to the applicable provisions(s) of (a), above, the division shall:

(1) Issue to the source owner or operator within 60 days of receipt of documentation submitted pursuant to (b), above, an initial determination of sufficiency; or

(2) Issue to the source owner or operator within 60 days of receipt of documentation submitted pursuant to (b), above, an initial determination of insufficiency, together with a request for all additional information necessary to issue a RACT determination for a modified emission rate limit or modified control technique, as applicable.

(d) The director shall approve an alternative time period pursuant to (b)(3)a. or (b)(3)b., above, for which the source provides a demonstration that the applicable time periods specified therein are unrepresentative of the operation of the facility due to one or more of the following reasons:

(1) Add-on controls were installed during the calendar year 1990, or during the 1990 ozone season, as applicable, that resulted in VOC emission rate reductions of 40% or more of the average emission rate during the applicable time period immediately preceding the specified time period;

(2) Process or product changes were implemented during the calendar year 1990, or during the 1990 ozone season, as applicable, that resulted in VOC emission rate reductions of 40% or more of the average emission rate during the applicable time period immediately preceding the specified time period;

(3) The facility was not in existence or the applicable VOC-emitting processes or devices were not operational during any portion of calendar year 1990, or during any portion of the 1990 ozone season, as applicable; or

(4) Any other reason that the division, using EPA-approved methods and procedures as specified in 40 CFR § 51.165, determines is adequate to demonstrate that VOC emissions for calendar year

1990, or the 1990 ozone season, whichever is applicable, were unrepresentative of normal VOC-emitting facility operations.

Source. #1376, eff 7-1-79; ss by #1717, eff 2-19-81; ss by #2332, eff 4-29-83; ss by #2938, eff 12-27-84; amd by #4703, eff 11-16-89; ss by #5033, eff 12-27-90; amd by #5309, eff 1-17-92; ss by #5505, eff 11-15-92; ss by #6016, INTERIM, eff 4-14-95, EXPIRED: 8-12-95

New. #6087, eff 8-31-95; amd #6838, eff 8-27-98; ss by #7812, eff 12-31-02

Env-A 1204.06 RACT Order Issuance Procedures.

(a) In the event that an initial determination of sufficiency is made, the division shall issue a final determination of sufficiency and present to EPA and the owner or operator of the affected source a proposed RACT order within 60 days of the initial determination of sufficiency containing:

- (1) An inventory of all affected VOC-emitting devices or processes not exempt under the applicable provisions of this chapter;
- (2) Emission limits for all affected VOC-emitting devices or processes not exempt under the applicable provisions of this chapter;
- (3) A schedule requiring compliance with the RACT emission limits that contains the elements described in Env-A 1204.05(b)(6);
- (4) Procedures for determining initial compliance with the approved modified emission rate limits or control technology;
- (5) Procedures for assessing continuous compliance with the emission limits, if applicable; and
- (6) Recordkeeping and reporting requirements in accordance with the provisions of Env-A 903, Env-A 904, and Env-A 908.

(b) In the event that an initial determination of insufficiency is made, the division shall:

- (1) Issue a final determination of sufficiency and present to EPA and the owner or operator of the affected source a proposed RACT order containing those items listed in (a)(1) through (a)(6), above, within 60 days of the receipt of those items submitted pursuant to Env-A 1204.05(c)(2); or
- (2) Terminate the permit process and issue a final determination of insufficiency if a complete response to the initial determination of insufficiency is not received from the owner or operator of the affected facility within 60 days of receipt of notification of the division's initial determination of insufficiency.

(c) Within 30 days of the issuance of a proposed RACT order, the division shall issue a public notice of an oral hearing on a proposed RACT order, once in a newspaper of daily statewide circulation and once in a newspaper in the general locality of the affected source.

(d) The public notice specified in (c), above, shall include the date, time, and place of the oral hearing and a summary of the substantive terms of the proposed RACT order.

(e) The division shall conduct an oral hearing on the proposed RACT order not less than 30 days after the issuance of the public notice.

(f) The division shall issue a final RACT order to the owner or operator of the affected facility within 60 days of the date of the public hearing on the proposed RACT order.

(g) The division shall submit to EPA a revision to the state implementation plan (SIP) within 60 days of the issuance of a final RACT order.

Source. #1376, eff 7-1-79; ss by #1717, eff 2-19-81; ss by #2332, eff 4-29-83; ss by #2938, eff 12-27-84; amd by #4703, eff 11-16-89; ss by #5033, eff 12-27-90; amd by #5309, eff 1-17-92; ss by #5505, eff 11-15-92; ss by #6016, INTERIM, eff 4-14-95, EXPIRED: 8-12-95

New. #6087, eff 8-31-95; ss by #7812, eff 12-31-02

Env-A 1204.07 Emissions Monitoring Requirements. A source subject to this part shall comply with the applicable testing requirements as listed for each source category pursuant to Env-A 804. When compliance with the applicable emission standards is achieved by using a capture and control system, a capture efficiency test shall be performed according to the procedures in Env-A 805.

Source. #1376, eff 7-1-79; ss by #1717, eff 2-19-81; ss by #2332, eff 4-29-83; ss by #2938, eff 12-27-84; amd by #4703, eff 11-16-89; ss by #5033, eff 12-27-90; amd by #5309, eff 1-17-92; ss by #5505, eff 11-15-92; ss by #6016, INTERIM, eff 4-14-95, EXPIRED: 8-12-95

New. #6087, eff 8-31-95; ss by #7812, eff 12-31-02

Env-A 1204.08 Recordkeeping and Reporting Requirements. A source subject to this part shall comply with the applicable recordkeeping and reporting requirements as specified for each source category in Env-A 900.

Source. #1376, eff 7-1-79; ss by #1717, eff 2-19-81; ss by #2332, eff 4-29-83; ss by #2938, eff 12-27-84; amd by #4703, eff 11-16-89; ss by #5033, eff 12-27-90; amd by #5309, eff 1-17-92; ss by #5505, eff 11-15-92; ss by #6016, INTERIM, eff 4-14-95, EXPIRED: 8-12-95

New. #6087, eff 8-31-95; ss by #7812, eff 12-31-02

Env-A 1204.09 Applicability Criteria and Compliance Standards for Coating of Metal Cans.

(a) A source whose metal can coating operations have combined TPEs during any consecutive 12-month period after December 31, 1989 which equal or exceed 10 tons of VOCs shall be subject to the provisions of this section.

(b) For the purpose of this section, the following definitions shall apply:

- (1) "End sealing compound" means a synthetic rubber compound which is coated onto metal can ends and which functions as a gasket when the end is assembled on the can;
- (2) "Exterior base coating" means a coating applied to the exterior of the body of a 2-piece can to provide exterior protection to the metal or to provide background for the lithographic or printing operation;

- (3) "Interior base coating" means a coating applied by roller coater or spray to the metal sheets for 3-piece cans to provide a protective lining between the can metal and product;
- (4) "Interior body spray" means a coating sprayed on the interior of the metal can body to provide a protective film between the product and the can;
- (5) "Over-varnish" means a coating applied directly over a design coating or directly over ink to reduce the coefficient of friction, to provide gloss, and to protect the finish against abrasion and corrosion;
- (6) "Side seam spray" means a coating applied to the seam of a 3-piece can;
- (7) "3-piece can" means a metal can that is made by rolling a rectangular sheet of metal into a cylinder that is welded, cemented, or soldered at the seam and attaching 2 ends;
- (8) "2-piece can" means a metal can whose body and one end are formed from a shallow cup and to which the other end is later attached; and
- (9) "2-piece can exterior end coating" means a coating applied by roller coating or spraying to the exterior end of a metal can to provide protection to the metal.

(c) A metal can coating source shall be limited at all times to the emission rates specified below:

- (1) For use in interior or exterior sheet base-coating or over-varnish, or a 2-piece can exterior basecoat or over-varnish, 0.34 kg VOC/l (2.8 lb VOC/gallon) of coating as applied, excluding water and exempt compounds or, for a source implementing add-on controls or a bubble to achieve compliance, the solids-based emission rate determined by the procedure described in Env-A 1204.04(d);
- (2) For use in a 2-piece or 3-piece can interior body spray coating, or a 2-piece can exterior end spray or roll coating, 0.51 kg VOC/l (4.2 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds;
- (3) For use in 3-piece can side-seam spray operations, 0.66 kg VOC/l (5.5 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds; or
- (4) For use in end sealing compound operations, 0.44 kg VOC/l (3.7 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds.

(d) As an alternative to the applicable emission rate limit(s) specified in (c), above, a metal can coating operation meeting the applicability criteria of this section may satisfy the requirements of this section either by:

- (1) Implementing add-on control techniques or a bubble and complying with the solids-based emission rate limits calculated using the procedures of Env-A 1204.04(d); or
- (2) Meeting either a coatings-based or solids-based modified emission rate limit as approved by the director and EPA in accordance with the RACT order provisions of Env-A 1204.05 and Env-A 1204.06 in the event that the source owner or operator demonstrates that the specified emission rate limits in (c) or (d)(1), above, cannot be met because of technological or economic reasons.

Source. #1376, eff 7-1-79; ss by #1717, eff 2-19-81; ss by #1734, eff 3-25-81; ss by #2332, eff 4-29-83; ss by #2938, eff 12-27-84; amd by #4703, eff 11-16-89; ss by #5033, eff 12-

27-90; ss by #5505, eff 11-15-92; ss by #6016, INTERIM, eff 4-14-95, EXPIRED: 8-12-95

New. #6087, eff 8-31-95; ss by #7812, eff 12-31-02

Env-A 1204.10 Applicability Criteria and Compliance Standards for Coating of Paper, Fabric, Film and Foil Substrates.

(a) All sources whose paper, fabric, film, and foil coating operations, including specialty printing, have combined TPEs during any consecutive 12-month period after December 31, 1989 which equal or exceed 10 tons of VOCs shall be subject to the provisions of this section.

(b) Those processes applying a coating to vinyl or urethane coated fabric, or vinyl or urethane sheets, shall be exempt from the provisions of this section.

(c) Those processes applying a coating to any woven or non-woven, fibrous or non-fibrous substrate, including paper, fabric, glass matting, plastic film, ribbon, and magnetic tapes, shall be limited at all times to an emission rate of 0.35 kg VOC/l (2.9 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds.

(d) As an alternative to the applicable emission rate limit specified in (c), above, paper, fabric, film, and foil substrate coating operations meeting the applicability criteria of this section may satisfy the requirements of this section either by:

(1) Implementing add-on control techniques or a bubble and complying with the solids-based emission rate limit calculated using the procedures of Env-A 1204.04(d); or

(2) Meeting either a coatings-based or solids-based modified emission rate limit as approved by the director and EPA in accordance with the RACT order provisions of Env-A 1204.05 and Env-A 1204.06 in the event that the source owner or operator demonstrates that the specified emission rate limit in (c) or (d)(1), above, cannot be met because of technological or economic reasons.

Source. #1376, eff 7-1-79; ss by #1717, eff 2-19-81; paragraph (b), amd by #1734, eff 3-25-81; ss by #2332, eff 4-29-83; ss by #2938, eff 12-27-84; amd by #4703, eff 11-16-89; ss by #5033, eff 12-27-90; ss by #5505, eff 11-15-92; ss by #6016, INTERIM, eff 4-14-95, EXPIRED: 8-12-95

New. #6087, eff 8-31-95; ss by #7812, eff 12-31-02

Env-A 1204.11 Applicability Criteria and Compliance Standards for Vinyl and Urethane Substrate Coating.

(a) A source whose vinyl or urethane substrate coating operations have combined TPEs during any consecutive 12-month period after December 31, 1989 which equal or exceed 10 tons of VOCs shall be subject to the provisions of this section.

(b) A process applying a coating onto vinyl or urethane coated fabric, or vinyl or urethane sheets shall be limited at all times to an emission rate of 0.45 kg VOC/l (3.8 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds.

(c) As an alternative to the applicable emission rate limit specified in (b), above, a vinyl or urethane substrate coating operation meeting the applicability criteria of this section may satisfy the requirements of this section either by:

- (1) Implementing add-on control techniques or a bubble and complying with the solids-based emission rate limit calculated using the procedures of Env-A 1204.04(d); or
- (2) Meeting either a coatings-based or solids-based modified emission rate limit as approved by the director and EPA in accordance with the RACT order provisions of Env-A 1204.05 and Env-A 1204.06 in the event that the source owner or operator demonstrates that the specified emission rate limit in (b) or (c)(1), above, cannot be met because of technological or economic reasons.

Source. #1376, eff 7-1-79; ss by #1717, eff 2-19-81; paragraph (d), amd by #1734, eff 3-25-81; ss by #2332, eff 4-29-83; ss by #2938, eff 12-27-84; amd by #4703, eff 11-16-89; ss by #5033, eff 12-27-90; ss by #5505, eff 11-15-92; ss by #6016, INTERIM, eff 4-14-95, EXPIRED: 8-12-95

New. #6087, eff 8-31-95; ss by #7812, eff 12-31-02

Env-A 1204.12 Applicability Criteria and Compliance Standards for Metal Furniture Coating.

(a) A source whose metal furniture coating operations have combined TPEs during any consecutive 12-month period after December 31, 1989 which equal or exceed 10 tons of VOCs shall be subject to the provisions of this section. This section shall also apply to the emissions from application area(s), flash-off area(s), and oven(s) of metal furniture coating lines involved in prime and topcoat or single coating operations.

(b) For the purpose of this section, the following definitions shall apply:

- (1) "Application area" means the area within a facility where the coating is applied by spraying, dipping, or flowcoating techniques; and
- (2) "Flash-off area" means the space between the coating application area and the oven.

(c) Those processes applying a coating onto metal furniture or parts of metal furniture, including but not limited to tables, benches, chairs, file cabinets, and waste baskets, shall be limited at all times to an emission rate of 0.36 kg VOC/l (3.0 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds.

(d) As an alternative to the applicable emission rate limit specified in (c), above, a metal furniture coating operation meeting the applicability criteria of this section may satisfy the requirements of this section either by:

- (1) Implementing add-on control techniques or a bubble and complying with the solids-based emission rate limit calculated using the procedures of Env-A 1204.04(d); or
- (2) Meeting either a coatings-based or solids-based modified emission rate limit as approved by the director and EPA in accordance with the RACT order provisions of Env-A 1204.05 and Env-A 1204.06 in the event that the source owner or operator demonstrates that the specified emission rate limit in (c) or (d)(1), above, cannot be met because of technological or economic reasons.

Source. #1376, eff 7-1-79; ss by #1717, eff 2-19-81, paragraph (e); paragraphs (a-d), ss by #1734, eff 3-25-81; ss by #2332, eff 4-29-83; ss by #2938, eff 12-27-84; amd by #4703, eff 11-16-89; ss by #5033, eff 12-27-90; amd by

#5309, eff 1-17-92; ss by #5505, eff 11-15-92; ss by #6016, INTERIM, eff 4-14-95, EXPIRED: 8-12-95

New. #6087, eff 8-31-95; ss by #7812, eff 12-31-02

Env-A 1204.13 Applicability Criteria and Compliance Standards for Magnetic Wire Insulation Coating.

(a) A source whose magnetic wire insulation coating operations have combined TPEs during any consecutive 12-month period after December 31, 1989 which equal or exceed 10 tons of VOCs shall be subject to the provisions of this section.

(b) A process applying a coating of electrically insulating varnish or enamel onto copper or aluminum wire or foil shall be limited at all times to an emission rate of 0.20 kg VOC/l (1.7 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds.

(c) As an alternative to the applicable emission rate limit specified in (b), above, a magnetic wire insulation coating operation meeting the applicability criteria of this section may satisfy the requirements of this section either by:

(1) Implementing add-on control techniques or a bubble and complying with the solids-based emission rate limit calculated using the procedures of Env-A 1204.04(d); or

(2) Meeting either a coatings-based or solids-based modified emission rate limit as approved by the director and EPA in accordance with the RACT order provisions of Env-A 1204.05 and Env-A 1204.06 in the event that the source owner or operator demonstrates that the specified emission rate limit in (b) or (c)(1), above, cannot be met because of technological or economic reasons.

Source. #1734, eff 3-25-81; ss by #2332, eff 4-29-83; ss by #2938, eff 12-27-84; amd by #4703, eff 11-16-89; ss by #5033, eff 12-27-90; ss by #5505, eff 11-15-92; ss by #6016, INTERIM, eff 4-14-95, EXPIRED: 8-12-95

New. #6087, eff 8-31-95; ss by #7812, eff 12-31-02

Env-A 1204.14 Applicability Criteria and Compliance Standards for Coating of Metal Coils.

(a) A source whose metal coil coating operations have combined TPEs during any consecutive 12-month period after December 31, 1989 which equal or exceed 10 tons of VOCs shall be subject to the provisions of this section.

(b) A process applying a coating onto a metal coil substrate shall be limited at all times to an emission rate of 0.31 kg VOC/l (2.6 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds.

(c) As an alternative to the applicable emission rate limit specified in (b), above, a metal coil coating operation meeting the applicability criteria of this section may satisfy the requirements of this section either by:

(1) Implementing add-on control techniques or a bubble and complying with the solids-based emission rate limit calculated using the procedures of Env-A 1204.04(d); or

(2) Meeting either a coatings-based or solids-based modified emission rate limit as approved by the director and EPA in accordance with the RACT order provisions of Env-A 1204.05 and Env-

A 1204.06 in the event that the source owner or operator demonstrates that the specified emission rate limit in (b) or (c)(1), above, cannot be met because of technological or economic reasons.

Source. #1376, eff 7-1-79; ss by #1717, eff 2-19-81; ss by #1734, eff 3-25-81; ss by #2332, eff 4-29-83; ss by #2938, eff 12-27-84; amd by #4703, eff 11-16-89; ss by #5033, eff 12-27-90; amd by #5309, eff 1-17-92; ss by #5505, eff 11-15-92; ss by #6016, INTERIM, eff 4-14-95, EXPIRED: 8-12-95

New. #6087, eff 8-31-95; ss by #7812, eff 12-31-02

Env-A 1204.15 Applicability Criteria and Compliance Standards for Coating of Miscellaneous Metal Parts and Products.

(a) A source whose miscellaneous metal parts and products coating operations have combined TPEs during any consecutive 12-month period after December 31, 1989 which equal or exceed 10 tons of VOCs shall be subject to the provisions of this section.

(b) For the purpose of this section, the following definitions shall apply:

- (1) "Air dried coating" means coatings which are dried by the use of air or forced warm air at temperatures up to 90°C (194°F);
- (2) "Coating application system" means all operations and equipment that apply, convey, and dry a coating, including, but not limited to, spray booths, flow coaters, flash-off areas, air dryers, and ovens;
- (3) "Exposure to extreme environmental conditions" means constant exposure to weather, or exposure to either ambient temperatures frequently above 95°C (203°F), detergents, abrasive and scouring agents, solvents, corrosive atmospheres, or similar environmental conditions;
- (4) "Extreme performance coating" means a coating designed for exposure to extreme environmental conditions;
- (5) "Heat sensitive material" means a material which cannot consistently be exposed to temperatures greater than 95°C (203°F); and
- (6) "Single coat" means one film of coating applied to a metal surface.

(c) Those processes applying a protective, decorative, or functional coating onto metal parts and products, such as tractors, fans, pumps, meters, doors frames, and shelves, shall be limited at all times to the emission rates specified below:

- (1) For a coating that is a clear or transparent top coat, 0.52 kg VOC/l (4.3 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds;
- (2) For a coating that is air dried, 0.42 kg VOC/l (3.5 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds;
- (3) For a coating that is used in extreme environmental conditions, 0.42 kg VOC/l (3.5 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds; and
- (4) For all other coatings, 0.36 kg VOC/l (3.0 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds.

(d) If more than one emission limitation in (c), above, applies to a specific coating, then the least stringent emission limitation shall apply.

(e) All VOC emissions from solvent washing shall be considered in the emission limitations unless the solvent is directed into containers that prevent evaporation into the atmosphere.

(f) As an alternative to the applicable emission rate limit specified in (c), above, as qualified by (d) and (e), above, a miscellaneous metal parts coating operation meeting the applicability criteria of this section may satisfy the requirements of this section either by:

(1) Implementing add-on control techniques or a bubble and complying with the solids-based emission rate limits calculated using the procedures of Env-A 1204.04(d); or

(2) Meeting either a coatings-based or solids-based modified emission rate limit as approved by the director and EPA in accordance with the RACT order provisions of Env-A 1204.05 and Env-A 1204.06 in the event that the source owner or operator demonstrates that the specified emission rate limits in (c) or (f)(1), above, cannot be met because of technological or economic reasons.

Source. #1376, eff 7-1-79; ss by #1717, eff 2-19-81; ss by #1734, eff 3-25-81; ss by #2332, eff 4-29-83; ss by #2938, eff 12-27-84; ss by #5033, eff 12-27-90; amd by #5309, eff 1-17-92; ss by #5505, eff 11-15-92; ss by #6016, INTERIM, eff 4-14-95, EXPIRED: 8-12-95

New. #6087, eff 8-31-95; ss by #7812, eff 12-31-02

Env-A 1204.16 Applicability Criteria for Plastic Parts Coating. A source whose plastic parts coating operations have combined TPEs during any consecutive 12-month period after December 31, 1989 which

equal or exceed 50 tons of VOCs shall be subject to the provisions of Env-A 1204.17 through Env-A 1204.24, as applicable.

Source. #1376, eff 7-1-79; ss by #1717, eff 2-19-81; ss by #1734, eff 3-25-81; ss by #2332, eff 4-29-83; ss by #2938, eff 12-27-84; amd by #4703, eff 11-16-89; ss by #5033, eff 12-27-90; ss by #5505, eff 11-15-92; ss by #6016, INTERIM, eff 4-14-95, EXPIRED: 8-12-95

New. #6087, eff 8-31-95; ss by #7812, eff 12-31-02

Env-A 1204.17 Compliance Standards for Coating Plastic Components of Automotive Interiors. Those processes applying a non-specialty protective, decorative, or functional coating onto plastic components of automotive interiors shall be limited at all times to the emission rates specified below:

- (a) For a high bake prime coating, 0.46 kg VOC/l (3.8 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds;
- (b) For a high bake color coating, 0.49 kg VOC/l (4.1 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds;
- (c) For a low bake prime coating, 0.42 kg VOC/l (3.5 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds; and
- (d) For a low bake color coating, 0.38 kg VOC/l (3.2 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds.

Source. #1734, eff 3-25-81; ss by #2332, eff 4-29-83; ss by #2938, eff 12-27-84; amd by #4703, eff 11-16-89; ss by #5033, eff 12-27-90; ss by #5505, eff 11-15-92; ss by #6016, INTERIM, eff 4-14-95, EXPIRED: 8-12-95

New. #6087, eff 8-31-95; ss by #7812, eff 12-31-02

Env-A 1204.18 Compliance Standards for Coating Plastic Components of Automotive Exteriors. Those processes applying a non-specialty protective, decorative, or functional coating onto plastic components of automotive exteriors shall be limited at all times to the VOC RACT emission rates specified below:

- (a) For a high bake flexible prime coating, 0.60 kg VOC/l (5.0 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds;
- (b) For a high bake nonflexible prime coating, 0.54 kg VOC/l (4.5 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds;
- (c) For a high bake color coating, 0.55 kg VOC/l (4.6 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds;
- (d) For a high bake clear coating, 0.52 kg VOC/l (4.3 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds;
- (e) For a low bake prime coating, 0.66 kg VOC/l (5.5 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds;

(f) For a red or black low bake color coating, 0.67 kg VOC/l (5.6 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds;

(g) For a low bake color coating, except for red or black colors, 0.61 kg VOC/l (5.1 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds; and

(h) For a low bake clear coating, 0.54 kg VOC/l (4.5 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds.

Source. #1376, eff 7-1-79; ss by #1717, eff 2-19-81; ss by #1734, eff 3-25-81; ss by #2332, eff 4-29-83; ss by #2938, eff 12-27-84; amd by #4703, eff 11-16-89; ss by #5033, eff 12-27-90; ss by #5505, eff 11-15-92; ss by #6016, INTERIM, eff 4-14-95, EXPIRED: 8-12-95

New. #6087, eff 8-31-95; ss by #7812, eff 12-31-02

Env-A 1204.19 Compliance Standards for Specialty Coatings on Automotive Components. The following processes applying specialty coatings onto plastic automotive components shall be limited at all times to the VOC RACT emission rates specified below, per specialty coating class:

(a) For a black or reflective argent coating, soft specialty coating, air bag cover coating, vacuum metalizing basecoat, and texture coating, 0.66 kg VOC/l (5.5 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds;

(b) For a gloss reducer, vacuum metalizing topcoat, and texture topcoat, 0.77 kg VOC/l (6.4 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds;

(c) For a stencil coating, adhesion primer, ink pad printing coating, electrostatic prep coat, and resist coating, 0.82 kg VOC/l (6.8 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds; and

(d) For a coating of headlamp lenses, 0.89 kg VOC/l (7.4 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds.

Source. #1376, eff 7-1-79; ss by #1717, eff 2-19-81; ss by #1734, eff 3-25-81; ss by #2332, eff 4-29-83; ss by #2938, eff 12-27-84; ss by #4703, eff 11-16-89; ss by #5033, eff 12-27-90; ss by #5505, eff 11-15-92; ss by #6016, INTERIM, eff 4-14-95, EXPIRED: 8-12-95

New. #6087, eff 8-31-95; ss by #7812, eff 12-31-02

Env-A 1204.20 Compliance Standards for Non-Automotive Nonspecialty Coatings. Those processes applying a nonspecialty protective, decorative, or functional coating onto plastic substrates, except for automotive plastic components, shall be limited at all times to the VOC RACT emission rates specified below:

(a) For a prime coating, 0.14 kg VOC/l (1.2 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds;

(b) For a nontexture color coating, 0.28 kg VOC/l (2.3 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds;

(c) For a texture color coating, 0.28 kg VOC/l (2.3 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds; and

(d) For electromagnetic interference (EMI) and radio frequency interference (RFI) shielding, 0.48 kg VOC/l (4.0 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds.

Source. #6016, INTERIM, eff 4-14-95, EXPIRED: 8-12-95

New. #6087, eff 8-31-95; ss by #7812, eff 12-31-02

Env-A 1204.21 Compliance Standards for Non-Automotive Specialty Coatings. Those processes applying a specialty protective, decorative, or functional coating onto plastic substrates, except for automotive plastic components, shall be limited at all times to the emission rates specified below, per specialty class:

(a) For a soft coating, 0.52 kg VOC/l (4.3 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds;

(b) For a plating resist, 0.71 kg VOC/l (5.9 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds; and

(c) For a plating sensitizer, 0.85 kg VOC/l (7.1 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds.

Source. #6016, INTERIM, eff 4-14-95, EXPIRED: 8-12-95

New. #6087, eff 8-31-95; ss by #7812, eff 12-31-02

Env-A 1204.22 General Compliance Standards for Plastic Parts Coating.

(a) If more than one emission limitation in Env-A 1204.17 through Env-A 1204.21, above, applies to a specific coating, then the least stringent emission limitation shall apply.

(b) For a plastic parts coating operation, except a touch-up and repair activity, one of the following control techniques shall be used:

(1) High volume-low pressure (HVLP) spray;

(2) Electrostatic spray;

(3) Zinc-arc spray;

(4) Air-assisted airless spray;

(5) Airless spray; or

(6) A flow coating technique.

Source. #6016, INTERIM, eff 4-14-95, EXPIRED: 8-12-95

New. #6087, eff 8-31-95; ss by #7812, eff 12-31-02

Env-A 1204.23 Compliance Standards for Coating Touch-Up and Repair Activities. A touch-up and repair activity, excluding such activities that employ only compliant coating materials and one or more of the application techniques listed in Env-A 1204.22(b), shall conform to the following requirements:

(a) Total VOC consumption associated with a touch-up and repair activity involving the use of conventional air spray shall not exceed 5 gallons per day per facility; and

(b) The touch-up and repair activity shall not exceed 10 gallons per day where such activity:

(1) Involves the use of aerosol containers; or

(2) Employs one or more non-compliant coating materials in conjunction with any of the application techniques listed in Env-A 1204.22(b).

Source. #6016, INTERIM, eff 4-14-95, EXPIRED: 8-12-95

New. #6087, eff 8-31-95; ss by #7812, eff 12-31-02

Env-A 1204.24 Alternatives to Requirements for Plastic Parts Coating. As an alternative to the applicable emission rate limits or technological controls specified in Env-A 1204.17 through Env-A 1204.23, a plastic parts coating operation meeting the applicability criteria of Env-A 1204.16 may satisfy those requirements either by:

(a) For emission rate limits, implementing add-on control techniques or a bubble and complying with the solids-based emission rate limits calculated using the procedures of Env-A 1204.04(d);

(b) Meeting either a coatings-based or solids-based modified emission rate limit as approved by the director and EPA in accordance with the RACT order provisions of Env-A 1204.05 and Env-A 1204.06 in the event that the source owner or operator demonstrates that the applicable specified emission rate limits cannot be met because of technological or economic reasons; or

(c) Complying with a modified control technique approved by the director and EPA in accordance with the RACT order provisions of Env-A 1204.05 and Env-A 1204.06 in the event that the source owner or operator demonstrates that the applicable specified control technique cannot be met because of technological or economic reasons.

Source. #6016, INTERIM, eff 4-14-95, EXPIRED: 8-12-95

New. #6087, eff 8-31-95; ss by #7812, eff 12-31-02

Env-A 1204.25 Applicability Criteria for the Coating of Wood Furniture, Burial Caskets, and Gunstock. A source whose wood furniture, wood burial casket, or gunstock coating and finishing operations have combined TPEs during any consecutive 12-month period after December 31, 1989, that equal or exceed the following VOC RACT applicability emissions thresholds shall be subject to the provisions of Env-A 1204.26 through Env-A 1204.35, as applicable:

(a) Wood furniture coating, 25 tons VOCs;

(b) Wood burial casket coating, 50 tons VOCs; or

(c) Gunstock coating, 50 tons VOCs.

Source. #6016, INTERIM, eff 4-14-95, EXPIRED: 8-12-95

New. #6087, eff 8-31-95; ss by #7812, eff 12-31-02

Env-A 1204.26 RACT Emission Rates for Wood Furniture and Burial Casket Finishing Operations.

(a) A wood furniture or burial casket finishing operation, except as specified in (b), below, shall be limited at all times to the VOC RACT emission rates specified below:

- (1) Using a topcoat with a VOC content no greater than 0.8 kg VOC/kg solids (0.8 lb VOC/lb solids), as applied; or
- (2) Using a finishing system of topcoats and sealers with a VOC content no greater than the limits specified below:
 - a. For topcoats, 1.8 kg VOC/kg solids (1.8 lb VOC/lb solids), as applied; and
 - b. For sealers, 1.9 kg VOC/kg solids (1.9 lb VOC/lb solids), as applied.

(b) A wood furniture finishing operation using either acid-cured alkyd amino vinyl sealers or acid-cured alkyd amino conversion varnish topcoats shall be limited at all times to the VOC RACT emission rates specified below:

- (1) Using a finishing system of topcoats and sealers consisting exclusively of acid-cured alkyd amino vinyl sealers and acid-cured alkyd amino conversion varnish topcoats with a VOC content no greater than the following:
 - a. For the sealers, 2.3 kg VOC/kg solids (2.3 lb VOC/lb solids), as applied; and
 - b. For the topcoats, 2.0 kg VOC/kg solids (2.0 lb VOC/lb solids), as applied;
- (2) Using a finishing system of topcoats and sealers consisting of acid-cured alkyd amino conversion varnish topcoats and sealers other than acid-cured alkyd amino vinyl sealers with a VOC content no greater than the limits specified below:
 - a. For the sealers, 1.9 kg VOC/kg solids (1.9 lb VOC/lb solids), as applied; and
 - b. For the topcoats, 2.0 kg VOC/kg solids (2.0 lb VOC/lb solids), as applied; or
- (3) Using a finishing system of topcoats and sealers consisting of acid-cured alkyd amino vinyl sealers and topcoats other than acid-cured alkyd amino conversion varnish topcoats with a VOC content no greater than the limits specified below:
 - a. For the sealers, 2.3 kg VOC/kg solids (2.3 lb VOC/lb solids), as applied; and
 - b. For the topcoats, 1.8 kg VOC/kg solids (1.8 lb VOC/lb solids), as applied.

Source. #6016, INTERIM, eff 4-14-95, EXPIRED: 8-12-95

New. #6087, eff 8-31-95; ss by #7812, eff 12-31-02

Env-A 1204.27 RACT Emission Rates for Gunstock Coating. Those processes applying a protective, decorative, or functional coating onto the wood surfaces of gunstock shall be limited at all times to using a finishing system of topcoats and sealers with a VOC content no greater than the limits specified below:

- (a) For topcoats, 2.0 kg VOC/kg solids (2.0 lb VOC/lb solids), as applied, averaged over any 24-hour period; and
- (b) For sealers, 2.3 kg VOC/kg solids (2.3 lb VOC/lb solids), as applied, averaged over any 24-hour period.

Source. #6016, INTERIM, eff 4-14-95, EXPIRED: 8-12-95

New. #6087, eff 8-31-95; amd #6838, eff 8-27-98

Env-A 1204.28 VOC Content Limits for Spray Booth Cleaning Operations in Wood Furniture, Wood Burial Casket Finishing Operations and Gunstock Coating Processes.

(a) The VOC content or amount of organic solvents and strippable booth coatings associated with a spray booth cleaning operation for a spray booth used in a wood furniture or wood burial casket finishing operation or gunstock coating process shall not, at any time, exceed the following limits:

- (1) For organic solvents used to clean spray booth components other than conveyors, continuous coaters and their enclosures, or metal filters of spray booths that are not being refurbished, 8.0% by weight of VOC;
- (2) For organic solvents used to clean a spray booth that is being refurbished, 1.0 gallon of organic solvent; and
- (3) For strippable booth coatings, 0.8 kg VOC/kg solids (0.8 lb VOC/lb solids), as applied.

(b) In addition to the requirements of (a), above, VOC emissions associated with materials storage or solvent cleaning operations applicable to wood furniture or burial casket finishing operations, or gunstock coating, shall be controlled as follows:

- (1) All finishing and cleaning materials shall be stored in a normally closed container;
- (2) All organic solvent used for line cleaning shall be pumped or drained into a normally closed container;
- (3) All organic solvent used to clean spray guns shall be collected into a normally closed container; and
- (4) Emissions from washoff operations shall be controlled by:
 - a. Using normally closed containers for washoff; and
 - b. Minimizing dripping by tilting or rotating the part to drain as much organic solvent as possible.

Source. #6016, INTERIM, eff 4-14-95, EXPIRED: 8-12-95

New. #6087, eff 8-31-95; ss by #7812, eff 12-31-02

Env-A 1204.29 Control Techniques for Wood Furniture, Wood Burial Casket, and Gunstock Coating Facilities.

(a) For a wood furniture, wood burial casket, or gunstock coating operation, one or more of the following control techniques shall be used:

- (1) High volume-low pressure (HVLP) spray;
- (2) Airless spray;
- (3) Air-assisted airless spray;

- (4) Flow coating techniques; or
- (5) Conventional air spray under any one or more of the following circumstances:
 - a. The finishing materials have a VOC content not greater than 1.0 kg VOC/kg solids (1.0 lb VOC/lb solids), as applied;
 - b. The spray is automated;
 - c. The emissions from the finishing application station are directed to add-on control equipment;
 - d. The conventional air spray gun is used to apply finishing materials and the cumulative total usage of that finishing material is less than 5.0% of the total gallons of finishing material used during the applicable semi-annual reporting period;
 - e. The conventional air gun is used to apply stain on a part for which it is technically or economically infeasible to use any other spray application technology, as demonstrated in accordance with the provisions of (b), below; or
 - f. Touch-up and repair activities are conducted in accordance with the provisions of Env-A 1204.30.

(b) Any source intending to use conventional air spray pursuant to (a)(5)e., above, shall demonstrate technical or economic infeasibility by submitting to the division a videotape, a technical report, or other documentation that supports the affected source's claim of technical or economic feasibility, to be determined in accordance with (c), below.

(c) The following criteria shall be used, either independently or in combination, to support the affected source's claim of technical or economic infeasibility pursuant to (b), above:

- (1) The production speed is too high or the part shape is too complex for a single operator to coat the part and the application station is not large enough to accommodate an additional operator; or
- (2) The excessively large vertical spray area of the part makes it difficult to avoid runs in the stain or sagging of the part.

Source. #7812, eff 12-31-02 (formerly Env-A1204.17(i))

Env-A 1204.30 Compliance Standards for Touch-Up and Repair Activities at Wood Furniture, Wood Burial Casket, and Gunstock Coating Facilities. Touch-up and repair activities, excluding such activities that employ only compliant coating materials and one or more of the application techniques listed in Env-A 1204.29(a), above, shall conform to the following requirements:

(a) Touch-up and repair activities using conventional air spray shall conform to one or more of the following requirements:

- (1) The touch-up and repair finishing materials shall be applied after the completion of the finishing operation; or
- (2) The touch-up and repair finishing materials shall be:
 - a. Applied after the application of the stain and prior to the application of any other types of finishing material; and

- b. Applied from a container with a capacity of not more than 2 gallons;
- (3) Total VOC consumption associated with touch-up and repair activities using conventional air spray shall not exceed 5 gallons per day at a stationary source; and
- (b) Consumption of touch-up and repair finishing materials shall not exceed 10 gallons per day where such activities employ:
 - (1) The use of aerosol containers; or
 - (2) One or more non-compliant coating materials in conjunction with any of the application techniques listed in Env-A 1204.29(a), above.

Source. #7812, eff 12-31-02 (formerly Env-A1204.17(j))

Env-A 1204.31 Training Requirements for Wood Furniture Coating Operations. Owners or operators of RACT-applicable wood furniture coating sources shall prepare an initial training course and an annual refresher course to be given to all source personnel, including contract personnel, who are directly involved in the implementation of this part meeting the requirements specified below:

- (a) The personnel training courses shall consist of, at a minimum, all of the following elements:
 - (1) A list of all personnel, including contract personnel, by name and job description;
 - (2) An outline of the subjects to be covered, for each person or group of personnel, in the initial training course and each refresher course;
 - (3) Lesson plans for the initial training course and each refresher course that include, at a minimum:
 - a. Application techniques;
 - b. Cleaning procedures, including appropriate management of cleanup wastes; and
 - c. Appropriate equipment assembly and adjustment to minimize coating and finishing material usage and overspray; and
 - (4) A description of the personnel examination methods to be used at the completion of the initial and refresher training to demonstrate and document successful completion; and
- (b) The source owner or operator shall maintain at the source a copy of all course materials developed pursuant to (a), above.

Source. #7812, eff 12-31-02 (formerly Env-A1204.17(k))

Env-A 1204.32 Leak Inspection and Maintenance Plan for Wood Furniture Coating Sources. Each owner or operator of a wood furniture coating source shall prepare, maintain, and implement a leak inspection and maintenance plan that contains the following:

- (a) A minimum visual inspection frequency of once per month for all equipment used to transfer or apply finishing materials or organic solvents;
 - (b) An inspection schedule;
 - (c) Methods for documenting the date and results of each inspection and any repairs that were made;
- and

(d) The timeframe between identifying the leak and making the repair, in accordance with the following schedule:

- (1) The first repair attempt, such as tightening of packing glands, shall be made no later than 5 working days after the leak is initially detected; and
- (2) Final repairs shall be made within the following time periods:
 - a. If the leaking equipment is to be replaced by a new purchase, not later than 90 calendar days after initial leak detection; or
 - b. If the leaking equipment is not to be replaced by a new purchase, not later than 15 working days after initial leak detection.

Source. #7812, eff 12-31-02 (formerly Env-A1204.17(l))

Env-A 1204.33 Accounting Form Requirements for Wood Furniture Coating Sources. Each owner or operator of a wood furniture coating source shall develop an organic solvent accounting form to record the following for each calendar month:

- (a) The quantity and type of organic solvent used for washoff and cleaning;
- (b) The number of pieces washed off, and the reason for the washoff; and
- (c) The quantity of spent organic solvent generated from each activity and the quantity of said solvent that is recycled on-site or disposed off-site.

Source. #7812, eff 12-31-02 (formerly Env-A1204.17(m))

Env-A 1204.34 Alternatives to Requirements for Wood Furniture, Wood Burial Casket, and Gunstock Coating and Finishing Operations. As an alternative to the applicable emission rate limits, technological controls, operation and maintenance controls, and work practice standards specified in Env-A 1204.26 through Env-A 1204.33, whichever requirements are applicable, wood furniture, wood burial casket, or gunstock coating and finishing operations meeting the applicability criteria of Env-A 1204.25 may implement one or more of the following methods:

(a) Install and use an add-on control system that results in emissions to the atmosphere that do not numerically exceed the applicable VOC content limits, validated by the procedure described in Env-A 1204.35;

(b) Meet either a coatings-based or solids-based modified emission rate or VOC content limit as approved by the director and EPA in accordance with the RACT order provisions in Env-A 1204.05 and Env-A 1204.06 in the event that the source owner or operator demonstrates that, because of technological or economic reasons, the source owner or operator cannot meet one or more of the following:

- (1) The applicable specified emission rate limit(s) in Env-A 1204.26 or Env-A 1204.27; or
- (2) The applicable VOC content limit prescribed in Env-A 1204.28(a); or

(c) Comply with one or more modified control techniques approved by the director and EPA in accordance with the RACT order provisions in Env-A 1204.05 and Env-A 1204.06 in the event that the source owner or operator demonstrates that the applicable specified control technique in Env-A 1204.28(b), Env-A 1204.29, Env-A 1204.30, Env-A 1204.31, Env-A 1204.32, or Env-A 1204.33 cannot be met because of technological or economic reasons.

Source. #7812, eff 12-31-02 (formerly Env-A1204.17(n))

Env-A 1204.35 Validation Procedure for An Alternative Add-On Control System. A source selecting an alternative compliance technique pursuant to Env-A 1204.34(a) shall demonstrate, in accordance with the procedures of Env-A 804.09, that the overall percentage reduction R_o achieved by the add-on control system exceeds the percentage reduction required to meet the applicable VOC content limit, determined as follows:

- (a) " C_v " means the VOC content of the coating, in kg VOC/kg solids (lb VOC/lb solids), as applied;
- (b) " C_{vp} " means the applicable maximum allowable VOC content prescribed in Env-A 1204.26 or Env-A 1204.27;
- (c) " R_{op} " means the overall percentage reduction R_o achieved by the add-on control system; and
- (d) R_{op} shall be greater than or equal to the difference between C_v and C_{vp} , divided by C_v and multiplied by 100, as in the following equation:

$$R_{op} \geq \frac{100 * (C_v - C_{vp})}{C_v}$$

Source. #7812, eff 12-31-02 (formerly Env-A1204.17(o))

Env-A 1204.36 Applicability Criteria and Compliance Standards for Rotogravure and Flexographic Printing.

(a) A source whose rotogravure or flexographic printing operations have combined TPEs during any consecutive 12-month period after December 31, 1989 which equal or exceed 50 tons of VOCs shall be subject to the provisions of this section.

(b) For the purpose of this section, the following definitions shall apply:

- (1) "Packaging rotogravure printing" means rotogravure printing upon paper, paper board, metal foil, plastic film, and other substrates, which are, in subsequent operations, formed into packaging products and other non-publication products; and
- (2) "Publication rotogravure printing" means rotogravure printing upon paper which is subsequently formed into books, magazines, catalogues, brochures, directories, newspaper supplements, pamphlets, periodicals, direct mail advertisements, display advertisements, and other printed materials.

(c) Those processes using packaging rotogravure, publication rotogravure, or flexographic printing shall be subject to one of the following, except as noted:

- (1) Each ink, as it is applied to the substrate, less water and non-volatile organic compounds, shall contain no more than 40% by volume of VOCs;
- (2) The volatile fraction of each ink, as it is applied to the substrate, shall contain no more than 25% by volume of VOCs and at least 75% by volume of water and non-volatile organic compounds;
- (3) For packaging rotogravure and flexographic printing only, each ink, as it is applied to the substrate, shall have a VOC content that is less than or equal to 0.5 kg VOC/kg (0.5 lb VOC/lb) coating solids; or

(4) The owner or operator of such processes shall install and operate:

- a. A carbon adsorption system which reduces the rate of VOC emissions delivered from the capture system to the control equipment by at least 90% by weight over the adsorption cycle or 24 hours, whichever is less; or
- b. Incineration control equipment which reduces the rate of VOC emissions delivered from the capture system to the incineration inlet by at least 90% by weight.

(d) A capture system shall be used in conjunction with the emission control system selected pursuant to (c), above, and subject to the requirements of (e), below.

(e) The design and operation of a capture system installed pursuant to (d), above, shall provide for an overall reduction in VOC emissions from each printing press of:

- (1) At least 75% where a publication rotogravure process is employed;
- (2) At least 65% where a packaging rotogravure process is employed; or
- (3) At least 60% where a flexographic printing process is employed.

(f) As an alternative to the applicable VOC limits and technological control standards specified in (c), (d), or (e), above, whichever requirements are applicable, a rotogravure or flexographic printing operation meeting the applicability criteria of this section may satisfy the requirements of this section by complying with the RACT order provisions in Env-A 1204.05 and Env-A 1204.06.

Source. #7812, eff 12-31-02 (formerly Env-A1204.18)

Env-A 1204.37 Applicability Criteria and Compliance Standards for Offset Lithographic Printing.

(a) A source whose offset lithographic printing operations have combined TPEs during any consecutive 12-month period after December 31, 1989 which equal or exceed 50 tons of VOCs shall be subject to the provisions of this section.

(b) For the purpose of this section, the following definitions shall apply:

- (1) "Alcohol substitute" means any non-alcohol additive that contains VOCs and is used in the fountain solution;
- (2) "Blanket" means the intermediary surface referred to in the definition of offset lithography in Env-A 1204.03;
- (3) "Cleaning solution" means any liquid used to remove ink and debris from the surfaces of the printing press and its parts;
- (4) "Dampening system" means equipment used to deliver the fountain solution to the lithographic plate;
- (5) "Fountain solution" means a mixture of water, volatile and non-volatile printing chemicals, and additives which maintains the quality of the printing plate and reduces the surface tension of the water so that it spreads easily across the printing surfaces;
- (6) "Heatset" means any operation where heat is required to set the printing ink;

- (7) "Heatset dryer" means any device used in heatset web offset lithographic printing to heat the printed substrate and to promote the evaporation of ink oils;
- (8) "Non-heatset" means any operation where the printing inks are set without the use of heat. This term includes ultraviolet-cured inks;
- (9) "Press" means a printing production assembly that can be made up of one or more units to produce a finished product;
- (10) "Sheet-fed" means any operation where paper is fed to the press in individual sheets;
- (11) "Unit" means the smallest complete component of a printing press which is capable of printing only one color;
- (12) "VOC composite pressure" means the sum of the pressures of the solvent compounds defined as VOCs; and
- (13) "Web" means a continuous roll of paper used as the printing substrate.
- (c) The owner or operator of an offset lithographic printing press shall comply with the control requirements described below:
- (1) Cleaning solution, used for blanket and ink roller washes shall not exceed the following VOC RACT limits:
- VOC content of 30.0% by weight, as applied; or
 - VOC content of 0.9 kg/liter (7.43 lb/gallon) of cleaning solution, as applied, with a VOC composite pressure of 10 mm Hg (0.19 psi) or less at 20°C (68°F);
- (2) All cleaning materials and soiled towels used for manual cleaning shall be kept in closed containers;
- (3) The VOC emissions from the dryer exhaust of heatset inks:
- Shall be reduced by at least 90.0%, by weight, of total organics, less methane and ethane; or
 - Shall not exceed 20 parts per million (ppm), by volume, prior to dilution; and
- (4) The fountain solution:
- Used in a heatset web offset lithographic printing press, shall be limited to one of the following:
 - VOC content of 1.6% or less, by weight;
 - VOC content of 3.0% or less, by weight, if the fountain solution is refrigerated to a temperature below 16°C (60°F); or
 - VOC content of 5.0% or less, by weight, if the fountain solution contains no alcohol;
 - Used in a sheet-fed offset lithographic facility, shall be limited to either of the following:
 - VOC content of 5.0% or less, by weight; or

2. VOC content of 8.5% or less, by weight, if the fountain solution is refrigerated to a temperature below 16°C (60°F); and

c. Used in a non-heatset web-fed offset lithographic printing process, including both newspaper and non-newspaper facilities, shall contain no alcohol and the concentration of total VOCs shall not exceed 5.0%, by weight, in the final solution.

(d) As an alternative to the applicable VOC limits and operational control standards specified in (c), above, whichever requirements are applicable, an offset lithographic operation meeting the applicability criteria of this section may satisfy the requirements of this section by complying with the RACT order provisions in Env-A 1204.05 and Env-A 1204.06.

Source. #7812, eff 12-31-02 (formerly Env-A1204.19)

Env-A 1204.38 Applicability Criteria and Compliance Standards for Fixed-Roof Tank VOL Storage.

(a) This section shall not apply to the following vertical fixed-roof VOL storage tanks:

(1) Any such tank having a storage capacity between 150,000 and 1,600,000 liters (between 40,000 and 420,000 gallons), which is used to store produced crude oil and condensate prior to lease custody transfer; and

(2) Any such tank used to store a VOL with a maximum true vapor pressure of less than 10.5 kPa (1.52 pounds per square inch atmospheric (psia)) under actual storage conditions, as verified by records maintained consistent with the provisions of Env-A 903.

(b) Except as provided in (a), above, this section shall apply to any vertical fixed-roof VOL storage tank with a storage capacity greater than 150,000 liters (40,000 gallons).

(c) For the purpose of this section, the following definitions shall apply:

(1) "Equilibrium partial pressure" means the pressure attributable to one of the several components of a gaseous or vapor mixture at which the number of molecules leaving the gaseous phase of the component is equal to the number entering it;

(2) "Internal floating roof" means a cover or roof in a fixed roof tank which rests upon or is floated upon the petroleum liquid being contained, and is equipped with a closure seal or seals to close the space between the roof edge and tank shell; and

(3) "True vapor pressure" means the equilibrium partial pressure exerted by a VOL as determined in accordance with methods described in American Petroleum Institute (API) Chapter 19.2, "Evaporative Loss From Floating Roof Tanks", first edition, April 1997.

(d) An above-ground, vertical, fixed roof tank meeting the applicability criteria of this section shall use the following control techniques:

(1) The tank shall be retrofitted with an internal floating roof equipped with a closure seal, or seals, to close the space between the roof edge and tank wall;

(2) Closure seals shall be maintained such that there are no visible holes, tears, or other openings in the seal(s) or any seal fabric or materials;

(3) All openings, except stub drains, shall be equipped with covers, seals, or lids that are kept closed at all times except when in actual use;

- (4) Automatic bleeder vents shall remain closed at all times except when the roof is floated off or being landed on the roof leg supports;
- (5) Rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting;
- (6) For a tank equipped with a single-seal system, visual inspections shall be conducted:
 - a. Of the internal floating roof and its closure seal(s) through roof hatches at least once every 12 months; and
 - b. Of the internal floating roof, seal(s), gaskets, slotted membranes, and sleeve seals at least once every 10 years or each time the tank is emptied and degassed, whichever occurs first; and
- (7) For a tank equipped with a double-seal system, visual inspections shall be conducted either:
 - a. As specified in (6) above; or
 - b. Of the internal floating roof, seal(s), gaskets, slotted membranes, and sleeve seals at least once every 5 years or each time the tank is emptied and degassed; whichever occurs first.
- (e) As an alternative to the control techniques specified in (d), above, above-ground, vertical fixed roof tanks meeting the applicability criteria of this section may satisfy the requirements of this section by complying with the RACT order provisions in Env-A 1204.05 and Env-A 1204.06.

Source. #7812, eff 12-31-02 (formerly Env-A1204.20)

Env-A 1204.39 Applicability Criteria and Compliance Standards for External Floating Roof Tanks.

- (a) This section shall not apply to the following external floating roof tanks:
 - (1) Any such tank having a storage capacity between 150,000 and 1,600,000 liters (between 40,000 and 420,000 gallons), which is used to store produced crude oil and condensate prior to lease custody transfer;
 - (2) Any such tank used to store a VOL with a maximum true vapor pressure of less than 10.5 kPa (1.52 psia) under actual storage conditions, as determined by methods described in API Chapter 19.2, "Evaporative Loss From Floating Roof Tanks", first edition, April 1997, and as verified by records maintained consistent with the provisions of Env-A 903;
 - (3) Any such tank used to store waxy, heavy-pour crude oil;
 - (4) Any such tank used to store VOL which:
 - a. Has a maximum true vapor pressure of less than 27.6 kPa (4.0 psia);
 - b. Is of welded construction; and
 - c. Was equipped with one of the following prior to August 31, 1995:
 - 1. A metallic shoe seal;
 - 2. A liquid-mounted foam seal;

3. A liquid-mounted liquid-filled type seal; or
4. An EPA-approved closure equipment of demonstrated equivalence; or

(5) Any such tank that:

- a. Is of welded construction; and
- b. Was equipped with the following prior to August 31, 1995:
 1. A metallic-type shoe primary seal; and
 2. A shoe-mounted secondary seal.

(b) Except as provided in (a), above, this section shall apply to an external floating roof VOL storage tank with a storage capacity greater than 150,000 liters (40,000 gallons).

(c) For the purpose of this section, the following definitions shall apply:

- (1) "Liquid-mounted seal" means a primary seal mounted around the circumference of the cylindrical tank in continuous contact with the liquid between the tank wall and the floating roof;
- (2) "Rim-mounted secondary seal" means a continuous seal extending from the floating roof to the tank wall;
- (3) "Shoe-mounted secondary seal" means a secondary seal that extends circumferentially from the top of the shoe seal to the tank wall;
- (4) "Shoe seal" means a seal consisting of a metal sheet connected by braces to the floating roof and held tight against the wall of a vertical tank by springs or weighted levers;
- (5) "Vapor-mounted seal" means a primary seal mounted so there is an annular vapor space underneath the seal, which space is bounded by the bottom of the primary seal, the tank wall, the liquid surface, and the floating roof; and
- (6) "Waxy, heavy-pour crude oil" means a crude oil with a pour point of 10°C (50°F) or higher as determined by the American Society for Testing and Materials (ASTM) Standard D97-96a, "Standard Test Method for Pour Point of Petroleum Products".

(d) An external floating roof tank meeting the applicability criteria of this section shall use the following VOC control techniques:

- (1) The tank shall be fitted with:
 - a. A rim-mounted secondary seal; or
 - b. A closure or other device that:
 1. Controls VOC emissions with an effectiveness equal to or greater than a rim-mounted secondary seal; and
 2. Is approved by the EPA Administrator as a SIP or federal implementation plan revision;
- (2) All seal closure equipment shall be maintained such that there are no visible holes, tears, or other openings in the seal or seal fabric;

- (3) The seal shall remain intact and uniformly in place around the circumference of the floating roof between the floating roof and the tank wall;
 - (4) For a floating roof equipped with a vapor-mounted primary seal, the accumulated area of gaps exceeding 0.32 cm (0.125 in.) in width between the secondary seal and the tank wall shall not exceed 21.2 sq. cm. per m. (1.0 sq. in. per ft.) of tank diameter, as determined by the method referenced in Env-A 804.19;
 - (5) All openings in the external floating roof, except for automatic bleeder vents, rim space vents, and leg sleeves, shall be equipped with covers, seals, or lids in the closed position, except when the openings are in actual use;
 - (6) All openings in the external floating roof, except for automatic bleeder vents, rim space vents, and leg sleeves, shall have projections into the tank that remain below the liquid surface at all times;
 - (7) Automatic bleeder vents shall remain closed at all times except when the roof is being floated off or being landed on the roof leg supports;
 - (8) Rim vents shall be set to open when the roof is being floated off the leg supports or at the manufacturer's recommended setting;
 - (9) Emergency roof drains shall be provided with slotted membrane fabric covers or equivalent covers which cover at least 90% of the area of the opening;
 - (10) Inspections in accordance with the provisions of Env-A 804.19 shall be performed at least semi-annually to ensure compliance with (2), (3), (5), and (6), above; and
 - (11) The secondary seal gap shall be measured at least annually in accordance with (4), above, and Env-A 804.19 when the floating roof is equipped with a vapor-mounted primary seal.
- (e) As an alternative to the control techniques specified in (d), above, an external floating roof tank meeting the applicability criteria of this section may satisfy the requirements of this section by complying with the RACT order provisions in Env-A 1204.05 and Env-A 1204.06.

Source. #7812, eff 12-31-02 (formerly Env-A1204.21)

Env-A 1204.40 Applicability Criteria and Compliance Standards for Bulk Gasoline Loading Terminals.

- (a) A bulk gasoline loading terminal meeting the definition of Env-A 1204.03(k) as of January 1, 1990 shall comply with the requirements of this section.
- (b) A bulk gasoline loading terminal operation shall use the following control techniques:
 - (1) VOC vapor emitted from tank truck loading operations at a bulk gasoline loading terminal shall be collected and controlled by equipment limiting the total VOC emission rate from the controlled operations over any one-hour period to 80 mg of VOC per liter (0.08 ounces per cubic foot) of gasoline loaded;
 - (2) All equipment such as pumps, tanks, couplings, hoses, and seals, used in loading gasoline trucks and controlling VOC emissions during loading, shall be maintained in leak-tight condition, as determined through test and maintenance procedures specified in the following document published by EPA:

EVALUATION OF VAPOR LEAKS AND DEVELOPMENT OF MONITORING
PROCEDURES FOR GASOLINE TANK TRUCKS AND VAPOR PIPING

Document number EPA-450/3-79-018

Office of Air Quality Planning and Standards

U.S. Environmental Protection Agency

Research Triangle Park, NC 27711

April, 1979;

- (3) The bulk gasoline loading terminal shall be equipped with a vapor control system capable of complying with (b)(1), above, and consisting of one of the following:
 - a. An adsorber or condensation system which processes and recovers at least 90% by weight of all vapors and gases from the devices being controlled;
 - b. A vapor collection system which directs all vapors to a fuel gas system and destroys at least 90% by weight all vapors and gases from the devices being controlled; or
 - c. A control system demonstrated to have control efficiency equivalent to or greater than a. or b. above, and approved by the director in accordance with the procedures of Env-A 809.01;
- (4) All displaced vapors and gases shall be vented only to the vapor control system;
- (5) An operation to which (b), above, applies shall not:
 - a. Allow gasoline to be discarded in sewers or stored in open containers or handled in any manner that would result in evaporation; or
 - b. Allow the pressure in the vapor collection system to exceed the tank truck or trailer pressure relief settings;
- (6) Liquid product shall be loaded only into vapor-tight gasoline trucks;
- (7) During a loading operation, the terminal owner or operator shall:
 - a. Obtain the vapor tightness documentation from the tank truck driver for each gasoline tank truck that is to be loaded at the bulk gasoline terminal loading rack;
 - b. Require the tank identification number to be recorded as each gasoline tank truck is loaded at the terminal;
 - c. Cross-check each tank identification number obtained in b., above, with the file of tank vapor tightness documentation within 2 weeks after the corresponding tank is loaded;
 - d. Notify the owner or operator of each non-vapor-tight gasoline tank truck loaded at the bulk gasoline terminal loading rack within 3 weeks after the loading has occurred that the truck is not vapor-tight; and
 - e. Develop and follow procedures to assure that no gasoline tank truck deemed to be non-vapor-tight under a., b. and c., above, will be reloaded until vapor tightness documentation for that tank is obtained;
- (8) The terminal owner or operator shall take measures to ensure that:

a. Loadings of gasoline tank trucks at the bulk gasoline terminal loading rack are made only into tanks equipped with vapor collection equipment that is compatible with the terminal's vapor collection system; and

b. The vapor collection systems of the terminal and tank truck are connected at the bulk gasoline tank truck at the bulk gasoline terminal loading racks during each loading;

(9) The vapor collection and liquid loading equipment shall be designed and operated to prevent gauge pressure in the delivery tank from exceeding 4,500 Pa, equivalent to 0.65 psi or 18 in. of water, during product loading;

(10) Measurement of the gauge pressure shall be as follows:

a. A pressure measuring instrument, such as a liquid manometer or equivalent, capable of measuring up to 500 mm mercury (20 in. water) gauge pressure, with a precision of ± 2.5 mm mercury (± 20 in. water) shall be calibrated and installed;

b. The pressure measuring instrument shall be connected to a pressure tap in the vapor collection system of the terminal, located as close as possible to the connection with the gasoline tank truck; and

c. During the performance test, gauge pressures shall be recorded at least once for each loading position according to the following procedure:

1. The pressure shall be recorded every 5 minutes during the loading of a gasoline tank truck; and

2. The highest instantaneous pressure that occurs during each loading shall be recorded;

(11) No pressure-vacuum vent in the bulk gasoline loading terminal's vapor collection system shall begin to open at a system pressure less than 4500 Pa, or 0.65 psi;

(12) At least once each calendar month, the vapor collection system, vapor control system, and each loading rack handling gasoline shall be inspected by visual, sound, or odor detection methods for total liquid or vapor organic compound leaks during the loading of gasoline tank trucks;

(13) Each detection of a leak shall be recorded and the source of the leak repaired within 15 calendar days after it is detected; and

(14) Loading of outgoing gasoline tank trucks shall be restricted to the use of submerged fill.

(c) As an alternative to the control techniques specified in (b), above, a bulk gasoline loading terminal meeting the definition of Env-A 1204.03(k) may satisfy the requirements of this section by complying with the RACT order provisions in Env-A 1204.05 and Env-A 1204.06.

Source. #7812, eff 12-31-02 (formerly Env-A1204.22)

Env-A 1204.41 Applicability Criteria and Compliance Standards for Bulk Gasoline Plants.

(a) A source with a bulk gasoline plant meeting the definition of Env-A 1204.03(l) as of January 1, 1990 shall comply with the requirements of this section.

(b) "Stage I vapor balance system," for the purpose of this section, means a closed system that allows the transfer of balancing of vapors, displaced during the loading or unloading of gasoline at a bulk gasoline plant, from the tank being loaded to the tank being unloaded.

(c) A bulk gasoline plant, regardless of storage capability or average daily throughput, shall use the following VOC control techniques:

- (1) The filling of a storage tank shall be restricted to the use of submerged fill;
- (2) The loading of an outgoing gasoline tank truck shall be restricted to the use of submerged fill; and
- (3) The bulk plant owner or operator and the owner or operator of each tank truck engaged in transfer operations at the bulk plant shall:
 - a. Observe all transfer operations involving the subject tank truck; and
 - b. Discontinue transfer immediately upon the observation of any vapor or liquid leaks associated with the transfer operation;

(d) A bulk gasoline plant having an average daily throughput of 15,000 liters (4,000 gallons) or more based on any consecutive 30-day period during the ozone season for the calendar year 1989 or any subsequent year shall be equipped with the following VOC control equipment:

- (1) A Stage I vapor balance system between each incoming gasoline tank truck and any gasoline storage tank having a capacity of more than 2,082 liters (550 gallons); and
- (2) A Stage I vapor balance system between each outgoing gasoline tank truck and any gasoline storage tank having a capacity of more than 2,082 liters (550 gallons);

(e) A Stage I vapor balance system installed pursuant to (d), above, shall be as follows:

- (1) A Stage I vapor balance system installed pursuant to (d)(1), above, shall be equipped with line fittings that:
 - a. Are vapor-tight; and
 - b. Automatically close upon disconnection; and
- (2) A Stage I vapor balance system installed pursuant to (d)(2), above, shall be designed to prevent any transfer of collected vapors between loading racks; and

(f) The owner or operator of any bulk gasoline plant having an average daily throughput of 15,000 liters (4,000 gallons) or more based on any consecutive 30-day period during the ozone season for the calendar year 1989 or any subsequent year shall ensure that the following VOC control procedures are observed during all transfer and storage operations:

- (1) The Stage I vapor balance system required in (d), above, shall remain connected between the tank truck and storage tank;
- (2) For a storage tank with a capacity of more than 2,082 liters (550 gallons), tank openings, including inspection hatches and gauging and sampling devices, shall remain vapor-tight when not in use;
- (3) The gasoline tank truck compartment hatch cover shall remain closed during product transfer;

(4) Gauge pressure shall not:

- a. Exceed 450 mm (18 in.) of water in the gasoline tank truck; or
- b. Exceed 150 mm (5.9 in.) of water in the vapor balance system vacuum during product transfer operations;

(5) Compliance with (4), above, shall be determined by means of a pressure measuring device, such as a liquid manometer, magnehelic gauge, or equivalent instrument, as follows:

- a. The device shall be capable of measuring 500 mm (20 in.) of water gauge pressure with a precision of ± 2.5 mm (± 0.098 in.); and
- b. The device shall be calibrated and installed on the bulk gasoline plant vapor balance system at a pressure tap that is located as close as possible to the connection with the gasoline tank truck;

(6) No pressure vacuum relief valve in the bulk gasoline plant vapor balance system shall begin to open at:

- a. A system pressure of less than 450 mm (18 in.) of water; or
- b. A vacuum of less than 150 mm (5.9 in.) of water;

(7) Loading of liquid product into gasoline tank trucks shall be limited to vapor-tight tank trucks;

(8) At least once each calendar month, the vapor balance systems required by (d), above, and each loading rack used in loading gasoline tank trucks shall be inspected by visual, sound, or odor detection methods for liquid or vapor leaks during product transfer operations; and

(9) Each detection of a leak shall be recorded and the source of the leak repaired within 16 calendar days after it is detected.

(g) As an alternative to the control techniques and equipment specified in (c) through (f), above, bulk plants meeting the definition of Env-A 1204.03(l) may satisfy the requirements of this section by complying with the RACT order provisions in Env-A 1204.05 and Env-A 1204.06.

Source. #7812, eff 12-31-02 (formerly Env-A1204.23)

Env-A 1204.42 Applicability Criteria and Compliance Standards for Cutback and Emulsified Asphalt.

(a) A source using cut-back asphalt or emulsified asphalt in the paving of public roads or highways shall comply with the requirements of this section.

(b) For the purpose of this section, the following definitions shall apply:

- (1) "Medium curing cutback asphalt" means a material which meets the specifications of the American Association of State Highway and Transportation Officials (AASHTO) designation M82-75 (1993); and
- (2) "Penetrating prime coat" means an application of low-viscosity liquid asphalt to an absorbent surface used to prepare an untreated base for an asphalt surface.

(c) Cutback asphalt shall not be used in the paving and maintenance of public roads and highways during the months of June through September with the following exceptions:

- (1) The use of medium curing cutback asphalts solely as penetrating primecoat for aggregate bases prior to paving;
- (2) The use of medium curing cutback asphalts for the manufacture of long-term storage or stockpiling of patching mixes used in pavement maintenance; or
- (3) The use of cutback asphalts for which the user can demonstrate, in accordance with (d), below, that minimal emissions shall occur under conditions of normal use.

(d) For a cutback asphalt user seeking an application permit during the months of June through September, an acceptable demonstration of minimal emissions shall be the submittal of distillation test data in accordance with ASTM D402-97, "Standard Test Method for Distillation of Cutback Asphaltic (Bituminous) Products", showing that less than 5% of the total solvent has evaporated at temperatures up to and including 260°C (500°F).

(e) Emulsified asphalt used in the paving and maintenance of public roads and highways shall contain no petroleum solvents except for uses and with maximum solvent contents (MSC's) as follows:

- (1) For use as seal coats, the MSC shall be 3%;
- (2) For use as chip seals when dusty or dirty aggregate is used, the MSC shall be 3%;
- (3) For use as seal coats or chip seals when good particle coating cannot be attained with emulsions containing 3% or less solvent, by weight, when tested according to the ASTM D244-00 "Standard Test Methods for Emulsified Asphalts", Coatability Test, Sections 52 through 57, by the New Hampshire department of transportation (NHDOT) or an independently owned laboratory designated by the NHDOT, the MSC shall be 5%;
- (4) For use as mixing with open graded aggregate that is not well washed, the MSC shall be 8%;
or
- (5) For use as mixing with dense graded aggregate, the MSC shall be 12%.

(f) As an alternative to the control techniques specified in (c) and (e), above, whichever is applicable, a cutback and emulsified asphalt paving operation meeting the applicability criteria of this section may satisfy the requirements of this section by complying with the RACT order provisions in Env-A 1204.05 and Env-A 1204.06.

Source. #7812, eff 12-31-02 (formerly Env-A1204.25)

Env-A 1204.43 Applicability Criteria for Solvent Metal Cleaning.

(a) A cold cleaning machine that has an operating capacity of one liter (0.26 gallon) or less of VOC shall be exempt from Env-A 1204.44.

(b) An open top vapor degreaser with an open top area less than 1.0 square meter (m²) (10.8 square feet (ft²)) shall be exempt from Env-A 1204.45 if the owner or operator uses appropriate work practices to reduce VOC emission and prevent solvent spillage including, but not limited to, keeping the cover closed on the machine at all times except when processing work loads through the degreaser and storing waste solvent in closed containers.

(c) A conveyorized degreaser with an air/solvent interface area less than 2.0 m² (21.6 ft²) shall be exempt from Env-A 1204.46(a).

Source. #7812, eff 12-31-02; ss by #8293, eff 2-26-05

Env-A 1204.44 Compliance Standards for Cold Cleaning.

(a) The owner or operator of a cold cleaning process shall control such process by using the control techniques, operating requirements, and equipment described below:

(1) Control techniques shall include the following:

a. To prevent spillage, either:

1. A freeboard height that gives a freeboard ratio greater than or equal to 0.75 unless the machine is equipped with a cover that is kept closed except when parts are being placed into or being removed from the machine; or
2. A water cover at least 2.54 centimeter (cm) (1 inch (in)) deep, where the solvent is insoluble in and heavier than water;

b. If a solvent spray is used, the spray nozzle shall be capable of delivering a cohesive fluid stream, rather than a fine, atomized or shower type spray, operated according to (2)f., below; and

c. A permanent, legible, and conspicuous label, summarizing the operating requirements specified in (2), below, affixed to each solvent container or other location where it can be easily seen by the operator;

(2) Operating requirements shall be as follows:

a. Waste solvent shall be stored only in covered containers;

b. The degreaser cover shall be closed whenever parts in the cleaner are not being handled manually;

c. Cleaned parts shall be drained for at least 15 seconds or until dripping ceases, whichever is longer;

d. Solvent leaks shall be repaired immediately or the degreaser shall be shut down;

e. Drafts across the top of each cold cleaning unit shall be minimized;

f. Where a solvent spray is used, such spraying shall be:

1. Operated at a pressure which does not exceed 10 psig as measured at the pump outlet; and
2. Performed only within the confines of the degreasing unit;

g. Sponges, fabric, wood, leather, paper products, and other absorbent materials shall not be cleaned in a cold cleaning machine;

h. After March 1, 2007, the owner or operator of a cold cleaning machine shall not use in the machine any solvent with a vapor pressure of 1.0 millimeters of mercury (mm Hg) or greater, measured at 20°C (68°F); and

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i. The operator of a cold cleaning machine shall maintain for not less than 2 years and shall provide to the department, on request:

1. The information specified in (c)(1), below, in the form of an invoice, bill of sale, or certificate that corresponds to a number of sales; and
2. The material safety data sheet (MSDS) as specified in (c)(2), below; and

(3) If the cold cleaning machine can hold more than 7.5 liters, control equipment shall include the following:

- a. A tank cover that is easily operated with one hand; and
- b. An internally mounted drainage device that operates such that parts to be cleaned are enclosed under the cover while draining, except that the drainage device may be external for applications where an internal type cannot fit into the cleaning system.

(b) After March 1, 2006, a person shall not sell or offer for sale for use in a cold cleaning machine in New Hampshire any solvent with a vapor pressure of 1.0 mm Hg or greater, measured at 20°C (68°F).

(c) After March 1, 2006, a person who sells or offers for sale any solvent for use in a cold cleaning machine in New Hampshire shall provide, to the purchaser, the following written information:

- (1) The name and address of the solvent supplier; and
- (2) A MSDS listing the type of solvent, the product or vendor identification number, and the vapor pressure of the solvent measured in mm Hg at 20°C (68°F).

Source. #7812, eff 12-31-02 (formerly Env-A1204.26(c)); ss by #8293, eff 2-26-05

Env-A 1204.45 Compliance Standards for Open Top Vapor Degreasers. Open top vapor degreasers shall be controlled using the control equipment, techniques, and operating requirements described below:

(a) Control equipment shall consist of the following:

- (1) A cover, located below the lip exhaust, if any, that can be opened and closed easily without disturbing the vapor zone;
- (2) Safety switches, as follows:
 - a. Equipment preventing heat input to the sump when the condenser coolant is not circulating or when the liquid solvent level drops down to the height of the sump heater coils;
 - b. Equipment preventing spraying outside the vapor level; and
 - c. Equipment that shuts off the sump heat if the upper vapor level rises above the height of the primary condenser;

(b) Control techniques shall consist of the following:

- (1) For degreasers with an open area equal to or greater than one m² (10.8 ft²), at least one of the following techniques or combination of techniques:

- a. The combination of:
 1. A freeboard ratio greater than or equal to 0.75; and
 2. A powered cover;
 - b. An enclosed design, such as a cover or door which opens only when the dry part is actually entering or exiting the degreaser;
 - c. A refrigerated chiller that is capable of maintaining the chilled air blanket temperature, measured at the centroid of the degreaser at the coldest point, at no more than 30% of the solvent's boiling point (°F); or
 - d. A carbon adsorption system meeting the requirements of (c), below; and
- (2) For degreasers with an open area less than one m² (10.8 ft²), at least one of the following techniques:
- a. A freeboard ratio greater than or equal to 0.75; or
 - b. An enclosed design, such as a cover or door which opens only when the dry part is actually entering or exiting the degreaser;
- (c) A carbon adsorption system installed pursuant to (b)(1)d., above, shall comply with the following operational requirements:
- (1) Ventilation greater than or equal to 15 m³/min per m² (50 cfm/ft²) of air/vapor area when cover is open; and
 - (2) Exhausting less than 25 ppm solvent averaged over one complete adsorption cycle or 24 hours, whichever is less; and
- (d) Operating requirements shall be as follows:
- (1) The cover shall be kept closed at all times except when processing work loads through the degreaser;
 - (2) Solvent carry-out shall be minimized by using the following measures:
 - a. Racking parts to allow full drainage;
 - b. Moving parts in and out of the degreaser at less than 3.3 m/min (11 ft/min);
 - c. Degreasing the work load in the vapor zone at least 30 seconds or until condensation ceases, whichever is longer;
 - d. Tipping out any pools of solvent on the cleaned parts before removal; and
 - e. Allowing parts to dry within the freeboard zone of the degreaser for at least 15 seconds or until visually dry, whichever is longer;
 - (3) The unit shall not be used to degrease porous or absorbent materials, such as cloths, leather, wood, or rope;
 - (4) Work loads shall not occupy more than half of the degreaser's open top area;

- (5) The degreaser shall not be loaded to the point where the vapor level would drop more than 10 centimeters (4 inches) when the workload is removed from the vapor zone;
- (6) No spraying shall occur above the vapor level;
- (7) Solvent leaks shall be repaired immediately, or the degreaser shut down;
- (8) The evaporation of waste solvent into the ambient air shall not exceed 20% of the weight of the waste during the process of:
 - a. Disposing of the waste solvent; or
 - b. Transferring the waste solvent to another person;
- (9) Waste solvent shall be stored only in closed containers;
- (10) Exhaust ventilation shall not exceed 20 m³/min per m² (65 cfm per ft²) of degreaser open area, unless necessary to meet OSHA requirements;
- (11) Drafts shall be minimized across the top of each degreasing unit such that whenever the cover is open, the unit is not exposed to drafts greater than 40 meters (131 feet) per minute, as measured between 1 and 2 meters (3.3 and 6.6 feet) upwind and at the same elevation as the tank lip;
- (12) Water shall not be visually detectable in solvent exiting the water separator; and
- (13) A permanent, legible, and conspicuous label, summarizing the operating requirements listed above, shall be affixed to each solvent container or other location where it can be easily seen by the operator.

Source. #7812, eff 12-31-02 (formerly Env-A1204.26(d))

Env-A 1204.46 Compliance Standards for Conveyorized Degreasers. Conveyorized degreasers shall be controlled using the control equipment, techniques, and operating requirements described below:

- (a) The degreaser shall be controlled by one of the following major control techniques:
 - (1) Refrigerated chiller; or
 - (2) Carbon adsorption system meeting the operational requirements of (c)(10), below;
- (b) Control equipment shall consist of the following:
 - (1) A drying tunnel, or another means to prevent cleaned parts from carrying out solvent liquid or vapor, such as a rotating or tumbling basket;
 - (2) Safety switches, as follows:
 - a. Equipment preventing heat input to the sump when the liquid solvent level drops down to the height of the sump heater coils or the condenser coolant is not circulating;
 - b. Equipment preventing spraying outside the vapor level; and
 - c. A vapor level control thermostat which shuts off the sump heat if the vapor level rises above the height of the primary condenser;

(3) Entrances and exits that silhouette work loads so that the average clearance between parts and the edge of the degreaser opening is either less than 10 cm (4 in.) or less than 10% of the width of the opening; and

(4) Covers for closing off the entrance and exit during shut-down hours; and

(c) Operating requirements shall be as follows:

(1) Exhaust ventilation shall not exceed 20 m³/min per m² (65 cfm per ft²) of degreaser open area, unless necessary to meet OSHA requirements;

(2) Drafts shall be minimized across the top of each degreasing unit such that whenever the cover is open, the unit is not exposed to drafts greater than 40 meters per minute, as measured between 1 and 2 meters upwind and at the same elevation as the tank lip;

(3) Draft velocity shall be determined by the testing method prescribed in Env-A 804.21;

(4) Carry-out emissions shall be minimized by:

a. Racking parts for best drainage; and

b. Maintaining vertical conveyor speed at less than 3.3 m/min (11 ft/min);

(5) The evaporation of waste solvent into the ambient air shall not exceed 20% of the weight of the waste during the process of:

a. Disposing of the waste solvent; or

b. Transferring the waste solvent to another person;

(6) Waste solvent shall be stored only in covered containers;

(7) Solvent leaks shall be repaired immediately, or the degreaser shut down;

(8) Water shall not be visibly detectable in the solvent exiting the water separator;

(9) Down-time covers shall:

a. Be placed over entrances and exits of conveyorized degreasers immediately after the conveyor and exhaust are shutdown; and

b. Be removed just before the conveyor and exhaust are started up; and

(10) All carbon adsorption systems installed pursuant to (a)(2), above, shall:

a. Provide ventilation greater than or equal to 15 m³/min per m² (50 cfm/ft²) of the air/solvent interface area when down-time covers are open; and

b. Exhaust less than 25 ppm of solvent by volume averaged over the length of one complete adsorption cycle or 24 hours, whichever is less.

Source. #7812, eff 12-31-02 (formerly Env-A1204.26(e))

Env-A 1204.47 Alternative to Requirements for Solvent Metal Cleaning Operations. As an alternative to the control system options specified in Env-A 1204.44, Env-A 1204.45, or Env-A 1204.46, whichever is

applicable, solvent metal cleaning operations may satisfy those requirements by complying with the RACT order provisions in Env-A 1204.05 and Env-A 1204.06.

Source. #7812, eff 12-31-02 (formerly Env-A1204.26(f))

Env-A 1204.48 Applicability Criteria for Miscellaneous and Multicategory Stationary VOC Sources.

(a) Any miscellaneous or multicategory stationary VOC source whose combined TPEs for all processes and devices equal or exceed 50 tons of VOC in any consecutive 12-month period at any time after December 31, 1989, shall be subject to Env-A 1204.49 and Env-A 1204.50, except as specified in (b) through (e), below.

(b) The following processes and devices shall be exempt from the provisions of Env-A 1204.49 and Env-A 1204.50:

- (1) VOC-emitting processes and devices that are subject to regulation under 40 CFR 61 or 40 CFR 63, in accordance with Env-A 600, subject to the provisions of (c), below;
- (2) VOC-emitting processes and devices that have been determined to be achieving Best Available Control Technology (BACT) for VOC or the Lowest Achievable Emission Rate (LAER) for VOC imposed in a enforceable permit or license that contains specific emission limitations, work practice standards, or both for all affected VOC-emitting processes and devices and which was issued pursuant to federally enforceable permitting rules;
- (3) VOC-emitting processes and devices that have been determined to be achieving RACT pursuant to a federally enforceable rule or permit;
- (4) Incomplete combustion, except where material is heated, burned, combusted, or otherwise chemically changed under oxygen-deficient conditions by design;
- (5) VOC emissions from non-core activities listed in Env-A 1204.03(bp);
- (6) VOC emissions from minor core activities having aggregate total actual VOC emissions of not more than 5 tons per year; and
- (7) Testing and research activities excluded under Env-A 1204.02(e).

(c) VOC-emitting processes and devices, unless a prior extension of compliance as provided in 40 CFR 63, Subpart D, has been granted, shall be exempt from the provisions of Env-A 1204.49 and Env-A 1204.50 provided that the total VOC emissions to the atmosphere from such equipment are reduced, on a daily basis, to a percentage equal to or greater than the percentage of hazardous air pollutants, excluding particulate matter hazardous air pollutants, required to be reduced in the applicable subpart under 40 CFR 61 or 40 CFR 63.

(d) Control option 3 in Env-A 1204.49(a)(3) shall be applicable only to the unclassifiable coating processes of RACT-applicable multicategory or miscellaneous stationary VOC sources.

(e) Control option 4 in Env-A 1204.49(a)(4) shall be applicable only to the classifiable components of RACT-applicable multicategory stationary VOC sources.

Source. #7812, eff 12-31-02 (formerly Env-A1204.27(a)-(c))

Env-A 1204.49 Compliance Options for Miscellaneous and Multicategory Stationary VOC Sources.

(a) VOC emissions from miscellaneous or multicategory stationary VOC sources meeting the applicability criteria in Env-A 1204.48 and not explicitly exempted by that section shall be controlled using one of the following control options:

(1) Control option 1 shall consist of the installation and operation of capture and control systems that result in a facility-wide reduction in the actual uncontrolled VOC emission rate to the atmosphere, calculated on a daily basis, of at least 81%, as determined by dividing the difference between the facility-wide uncontrolled VOC emissions from non-exempt core devices and processes and the facility-wide emissions from all VOC-emitting devices and processes utilizing capture and control systems by the facility-wide uncontrolled VOC emissions;

(2) Control option 2 shall consist of a program to reduce VOC use and emissions that is implemented such that the actual VOC emission rate does not exceed 20% of the actual VOC emission rate in calendar year 1990, or alternative year required pursuant to Env-A 1204.51, below, calculated on either:

a. A mass of VOC per mass of solids basis if the affected VOC-emitting process(es) or device(s) applies surface coatings; or

b. A mass of VOC per unit of production basis;

(3) Control option 3 shall consist of:

a. Limiting the daily weighted average VOC emission rate from any unclassifiable coating process or device to 0.40 kg VOC/l (3.5 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds, as calculated using the procedure described in Env-A 804.06; and

b. Complying with the provisions of (1) or (2) above, or (4) or (5) below, where applicable, for the unclassifiable non-coating and classifiable components of the source;

(4) Control option 4 shall consist of:

a. Complying with the provision(s) in Env-A 1204.09 through Env-A 1204.47 for each classifiable component of a multicategory source, whichever provision(s) are relevant, irrespective of whether the component meets the relevant applicability criteria for the relevant classifiable category;

b. Complying with the provisions of (1), (2), or (3) above, or (5) below, where applicable, for the unclassifiable components of the source;

c. Complying with the applicable provisions of Env-A 1204.09 through Env-A 1204.47, regardless of the option in this paragraph chosen by the source owner or operator, for all RACT-applicable classifiable components of the source; or

(5) Control option 5 shall consist of the implementation of a division and EPA-approvable plan, issued as a RACT order, pursuant to the provisions of Env-A 1204.05 and Env-A 1204.06.

(b) VOC emissions from RACT-applicable classifiable processes or devices at miscellaneous stationary VOC sources meeting the applicability criteria of Env-A 1204.48 shall be subject to the control requirements of the particular sections of this part pertaining to the appropriate classifiable process or device.

(c) VOC emissions from RACT-applicable classifiable processes or devices at multicategory stationary VOC sources adopting control option 4 shall be subject to the control requirements of the particular sections of this part pertaining to the appropriate classifiable process or device.

Source. #7812, eff 12-31-02 (formerly Env-A1204.27(d)-(f))

Env-A 1204.50 Documentation Required for Miscellaneous and Multicategory Stationary VOC Sources.

(a) The following documentation shall be submitted to the division by the owner or operator of all applicable sources subject to the requirements of Env-A 1204.49(a), above, regardless of the control option selected:

- (1) An inventory of all VOC-emitting processes or devices at the source;
- (2) An inventory of all VOC-emitting processes or devices at the source not exempt under the applicable provisions of Env-A 1204.02;
- (3) The maximum capacity of each affected VOC-emitting process or device to emit VOCs at the source not exempt under the applicable provisions of Env-A 1204.02; and
- (4) The daily average of actual VOCs emitted, based on solvent throughput or units of production, for each RACT-applicable VOC-emitting process or device at the source for the following time periods:
 - a. Calendar year 1990, or alternative calendar year or consecutive 12-month period required pursuant to Env-A 1204.51, below; and
 - b. The ozone season of calendar year 1990, or alternative calendar year required pursuant to Env-A 1204.51, below.

(b) The owner or operator of a source that adopts control option 1 shall submit to the division, in addition to the documentation required in (a), above, a detailed description of the capture and control system proposed.

(c) The owner or operator of a source that adopts control option 2 shall submit the following to the division:

- (1) A calculation of the daily weighted average amount of VOCs emitted to the atmosphere each day during which the facility or VOC-emitting process or device operated, stated in terms of either:
 - a. A mass of VOC emitted per quantity of solids basis; or
 - b. A mass of VOC emitted on a per unit of production basis; and
- (2) A calculation of the average amount of VOCs anticipated to be emitted to the atmosphere each day during which the VOC-emitting process(es) or device(s) operates upon implementation of control option 1, stated in terms of either:
 - a. A mass of VOC emitted per quantity of solids basis; or
 - b. A mass of VOC emitted on a per unit of production basis.

(d) The owner or operator of a source that adopts control option 3 shall submit to the division a calculation of the daily weighted average amount of VOCs anticipated to be emitted to the atmosphere each day during which VOC-emitting processes or devices operate upon implementation of the control option. The daily weighted average VOC shall be stated in terms of a mass of VOC emitted per quantity of liquid coating, as applied and calculated in accordance with the procedure described in Env-A 804.06.

(e) The owner or operator of a source that adopts control option 5 shall submit to the division documentation pursuant to the RACT order process, as specified in Env-A 1204.05(c) and (d).

Source. #7812, eff 12-31-02 (formerly Env-A1204.27(g), (i), (j), (k), and (l))

Env-A 1204.51 Alternative Time Periods for Miscellaneous and Multicategory Stationary VOC Sources. The director shall approve an alternative time period pursuant to Env-A 1204.49(a)(2) or Env-A 1204.50(a)(4) for which the source provides a demonstration that the applicable time periods specified therein are unrepresentative of the operation of the facility due to one or more of the following reasons:

(a) Add-on controls were installed during the calendar year 1990, or during the 1990 ozone season, whichever is applicable, that resulted in VOC emission rate reductions of 40% or more of the average emission rate during the applicable time period immediately preceding the specified time period;

(b) Process or product changes were implemented during the calendar year 1990, or during the 1990 ozone season, whichever is applicable, that resulted in VOC emission rate reductions of 40% or more of the average emission rate during the applicable time period immediately preceding the specified time period;

(c) The facility was not in existence or the applicable VOC-emitting processes or devices were not operational during any portion of calendar year 1990, or during any portion of the 1990 ozone season, whichever is applicable; or

(d) Any other reason that the division, using EPA-approved methods and procedures as specified in 40 CFR § 51.165, determines is adequate to demonstrate that VOC emissions for calendar year 1990, or the 1990 ozone season, whichever is applicable, were unrepresentative of normal VOC-emitting facility operations.

Source. #7812, eff 12-31-02 (formerly Env-A1204.27(h))

PART Env-A 1205 - RESERVED

REVISION NOTE:

Document #5446, effective 8-17-92, adopted a new rule numbered as Part Env-A 1205. The existing rules Env-A 1205, 1206, 1207, 1208, and 1209 were renumbered by Document #5446 as, respectively, Env-A 1206, 1207, 1208, 1209, and 1210. The texts of these 5 rules now numbered as Env-A 1206 through Env-A 1210 were not part of Document #5446, and the effective dates of these 5 rules were therefore not changed by Document #5446. Thus Document #5446 does not supersede prior filings for the 5 rules now numbered as Env-A 1206 through Env-A 1210.

Subsequent filings affecting Env-A 1205 are:

#6188, effective 2-22-96, EXPIRED 2-22-04
 #8048, INTERIM, effective 2-25-04
 #8141, effective 8-21-04

Document #8141 readopted with amendments and renumbered Env-A 1205 as Env-Wm 1404. See Env-Wm 1404 for further filings in this area.

PART Env-A 1206 - RESERVED

Source. #120, as in eff 8-31-73; ss by #460; ss by #721.10, eff 12-7-75; ss by #1717, eff 2-19-81; ss by #2332, eff 4-29-83; ss by #2938, eff 12-27-84; ss by #5033, eff 12-27-90; EXPIRED 12-27-96

PART Env-A 1207 - RESERVED

Revision Note:

Document #5264, effective 10-31-91, repealed Env-A 1206.03 and adopted a new rule numbered Part Env-A 1207. The former rules Env-A 1207 and Env-A 1208 were renumbered by Document #5264 as Env-A 1208 and Env-A 1209, but the text of these two rules was not part of Document #5264, and the effective date for these two rules was therefore not changed by Document #5264. Thus Document #5264 does not supersede prior filings for Env-A 1208 and Env-A 1209. Document #5264 also changed the title of Part Env-A 1206 from "Pulp and Paper Industry" to "Pulp and Paper Industry: Particulate Emissions."

Source. #120, as in eff 8-31-73; ss by #721.15, eff 12-7-75; ss by #1717, eff 2-19-81; ss by #2332, eff 4-29-83; ss by #2938, eff 12-27-84; ss by #5033, eff 12-27-90; EXPIRED 12-27-96

PART Env-A 1208 - RESERVED

Source. (See Revision Note at part heading for Env-A 1207) #5264, eff 10-31-91; ss by #6618, INTERIM, eff 10-31-97, EXPIRED: 2-28-98; moved by #6724-B to Env-A 2600, eff 3-28-98

PART Env-A 1209 - RESERVED

Source. #120, as in eff 8-31-73; ss by #459; ss by #721.8, eff 12-7-75; ss by #1717, eff 2-19-81; ss by #2332, eff 4-29-83; ss by #2938, eff 12-27-84; ss by #5033, eff 12-27-90; EXPIRED 12-27-96

PART Env-A 1210 - RESERVED

Source. #120, as in eff 8-31-73; ss by #462; ss by #721.13, eff 12-7-75; ss by #1717, eff 2-19-81; ss by #2332, eff 4-29-83; ss by #2938, eff 12-27-84; ss by #5033, eff 12-27-90; EXPIRED 12-27-96

PART Env-A 1211 NITROGEN OXIDES (NO_x)

Env-A 1211.01 Applicability.

(a) The requirements in Env-A 1211, as effective on October 31, 2002, shall not relieve any source that was subject to Env-A 1211, as effective on May 20, 1994, from its obligation to have been in compliance with applicable rules in the previously effective part.

(b) Utility boiler(s) shall be subject to the requirements of Env-A 1211.03 if the combined maximum heat input rate of such boiler(s) exceeds 50,000,000 Btu per hour at any time after December 31, 1989.

(c) Steam electric boiler(s) shall be subject to the requirements of Env-A 1211.04 if the combined maximum heat input rate of such boiler(s) exceeds 50,000,000 Btu per hour at any time after December 31, 1989.

(d) Industrial boiler(s) shall be subject to the requirements of Env-A 1211.05 if the combined maximum heat input rate of such boiler(s) exceeds 50,000,000 Btu per hour at any time after December 31, 1989.

(e) Stationary combustion turbine(s), except for combustion turbines mounted on aircraft and combustion turbines operating as load shaving units or emergency generators, shall be subject to the requirements of Env-A 1211.06 if the combined maximum heat input rate of such turbine(s) exceeds 25,000,000 Btu per hour at any time after December 31, 1989.

(f) Stationary internal combustion engine(s), except for stationary internal combustion engines operating as load shaving units or emergency generators, shall be subject to the requirements of Env-A 1211.07 if the combined maximum heat input rate of such engine(s) exceeds 4,500,000 Btu per hour at any time after December 31, 1989.

(g) Asphalt plant dryer(s) shall be subject to the requirements of Env-A 1211.08 if the combined maximum heat input rate of such dryer(s) exceeds 26,200,000 Btu per hour at any time after December 31, 1989.

(h) Incinerator(s), except for incinerators combusting sewage sludge, shall be subject to the requirements of Env-A 1211.09 if the combined processing capacity of such incinerator(s) exceeds 85 tons per day or more of waste at any time after December 31, 1989.

(i) Wallboard dryer(s), calcining mill(s), calciner(s), and gypsum rock dryer(s) shall be subject to the requirements of Env-A 1211.10 if the combined theoretical potential emissions of such wallboard dryer(s),

calcining mill(s), calciner(s), and gypsum rock dryer(s) equal or exceed 50 tons per calendar year of NO_x at any time after December 31, 1989.

(j) If the combined theoretical potential emissions from all devices and processes located at a stationary source exceed 50 tons per calendar year of NO_x at any time after December 31, 1989, all stationary internal combustion engines or combustion turbines used as emergency generators at that source shall be subject to the requirements of Env-A 1211.11 unless:

(1) All such emergency generators are limited to less than 500 hours of operation during any consecutive 12-month period; and

(2) The combined theoretical potential emissions of NO_x from all such generators are limited to less than 25 tons for any consecutive 12-month period by permit conditions.

(k) Auxiliary boiler(s) shall be subject to the requirements of Env-A 1211.12 if the combined theoretical potential emissions from all devices and processes located at the stationary source exceed 50 tons per calendar year of NO_x at any time after December 31, 1989.

(l) Load shaving unit(s) shall be subject to the requirements of Env-A 1211.13 if the combined theoretical potential emissions from all devices and processes located at the stationary source exceed 50 tons per calendar year of NO_x at any time after December 31, 1989.

(m) Any miscellaneous stationary source at a stationary source having combined theoretical potential emissions from all devices and/or processes which equal or exceed 50 tons per calendar year of NO_x at any time after December 31, 1989 shall be subject to the requirements of Env-A 1211.14, except for NO_x-emitting devices that have implemented Best Available Control Technology (BACT) for NO_x, or Lowest Achievable Emission Rate (LAER) for NO_x at any time after December 31, 1989 pursuant to a federally enforceable permit. Any device or group of devices at a stationary source which meet the applicability criteria of (b) through (l), above, shall be subject to the requirements of the applicable sections.

(n) Any stationary source having combined theoretical potential emissions of 50 tons or more of NO_x during any consecutive 12-month period but whose actual NO_x emissions have not equaled or exceeded 50 tons during any consecutive 12-month period since January 1, 1989, shall be subject to the requirements of this part, unless the following requirements are met:

(1) The combined actual NO_x emissions from NO_x emitting devices or processes are limited to less than 50 tons during any consecutive 12-month period by an enforceable permit or consent decree; and

(2) The source has been and remains in full compliance with the conditions of a permit issued by the division or by EPA, or the terms of any consent decree entered into by the division or by EPA, or any court order.

(o) Once a stationary source becomes subject to the requirements of this part, the source shall remain subject to these requirements even if it later falls below the applicability levels specified in (b) through (m), above.

(p) If a stationary source fails to comply with any of the terms or conditions of a permit or consent decree, or court order referred to in (n), above, the source shall immediately become subject to the applicable requirements of this part.

Source. #5826, eff 5-20-94; amd by #6506, eff 5-1-97 (repeal of former (ay); EXPIRED: 5-20-00

New. #7787, eff 10-31-02

Env-A 1211.02 Definitions. For the purposes of this part, the following definitions shall apply:

(a) "Actual mole ratio" means the measured number of moles of one chemical divided by the measured number of moles of a second chemical in the same chemical system;

(b) "Add-on control" means a device or process used to collect, remove, convert or destroy gaseous NOx pollutants resulting from the combustion of fuel or waste before these pollutants are released into the ambient air;

(c) "Asphalt" means a dark-brown to black cementitious material that is solid, semi-solid or liquid in consistency, in which the primary constituents are bitumens which occur in nature as such or are obtained as residue in refining petroleum;

(d) "Auxiliary boiler" means a boiler operated to provide steam and house heat only when the primary steam or power source for a facility is not available for use. Auxiliary boiler shall not include emergency generators and load shaving units;

(e) "Auxiliary fuel" means fuel, other than waste materials, used in an incinerator or resource recovery facility to attain temperatures sufficiently high enough to dry and ignite waste materials, to maintain ignition, or to drive the complete combustion of combustible solids, vapors and/or gaseous substances;

(f) "Classifiable process or device" means any process or device that emits NOx and is included in one of the categories listed in Env-A 1211.01(b) through (l), but is not subject to the requirements of Env-A 1211.03 through 1211.13 because such process or device falls below the applicability threshold;

(g) "Coal" means all solid fuels classified as anthracite, bituminous, lignite, or subbituminous according to the ASTM Standard Classification of Coals by Rank, ASTM D 388-99, coal refuse, and petroleum coke. The term includes coal-derived synthetic fuels, including but not limited to, solvent refined coal, gasified coal, coal-oil mixtures, and coal-water mixtures;

(h) "Cogeneration facility" means a facility that generates steam for the purpose of supplying heat or energy to a manufacturing process in the host facility, and power for sale to an electric utility;

(i) "Coke" means a fused, cellular, porous structure that remains after free moisture and the major portion of the volatile materials have been distilled from bituminous coal and other carbonaceous material by the application of heat in the absence of air or in the presence of a limited supply of air;

(j) "Combined cycle combustion turbine" means any stationary gas or oil-fired turbine which recovers heat from the turbine exhaust gases to heat water or generate steam;

(k) "Commercial fuel" means solid, liquid, or gaseous fuel normally produced or manufactured, and sold for the purpose of creating useful heat or mechanical energy;

(l) "Cyclone firing" means a fuel-firing process using one or more horizontal cylinders to burn fuel under conditions of high rates of heat release, low rates of heat absorption by the cylinder walls, with centrifugal action imparted to the fuel particles by air entering the cylinder. The combustion gases exiting from the cylinders turn 90 degrees to go up through the boiler. The horizontal cylinders are attached to the bottom of the furnace with one or more of the cylinders arranged on one furnace wall or on 2 opposed furnace walls;

(m) "Dry bottom" means the boiler has a furnace bottom temperature below the ash melting point, and the bottom ash is removed as a solid;

(n) "Electric generating utility" means a utility which is regulated by the public utilities commission and which generates electricity for sale;

(o) "Emergency generator" means a stationary internal combustion engine or stationary combustion turbine which operates as a mechanical or electrical power source only when the primary power source for a facility has been lost during an emergency, such as a power outage and/or during the normal maintenance and testing procedure as recommended by the manufacturer. Emergency generator does not include a load shaving unit, peaking power production unit, or a standby engine in an energy assistance program;

(p) "Emission unit" means an individual piece of equipment from which any air pollutant is emitted to the ambient air, such as an individual boiler;

(q) "Face firing" means a furnace firing design in which the burners are mounted in an array on one or more vertical walls, including:

(1) Opposed firing, where the burners are mounted on 2 opposite walls; and

(2) Single-wall firing, where the burners are mounted on only one wall;

(r) "Fuel-bound nitrogen" means the nitrogen content, in weight fraction, of the fuel;

(s) "Gas or gaseous fuel" means natural gas, or gaseous substances produced synthetically from coal or oil, or derived from the decomposition of organic matter, or derived as a by-product of a manufacturing process, and which can be used to create useful heat and/or mechanical energy;

(t) "Industrial boiler" means a steam generating unit that generates steam to supply power and/or heat to an industrial, institutional or commercial operation, excluding boilers used by electric utilities, small power producers and cogenerators to generate electricity;

(u) "Internal combustion engine" means any engine in which power, produced by heat and/or pressure developed in the engine cylinder(s) by burning a mixture of air and fuel, is subsequently converted to mechanical work by means of one or more pistons;

(v) "Lean burn engine" means a stationary internal combustion engine in which the amount of O₂ in the engine exhaust gases is 1.0% or more, by weight, unless otherwise specified by the engine manufacturer;

(w) "Limited at all times" means that the NO_x emissions of a source or device does not exceed the prescribed NO_x emission limit over the averaging time specified in the applicable section of this part during the entire period of time that the source or device operates;

(x) "Load shaving unit" means a device used to generate electricity for sale or use during high electric demand days, including but not limited to stationary combustion turbines or stationary internal combustion engines;

(y) "Low-NO_x emitting process" means a process that results in NO_x emission reductions which constitute NO_x RACT as approved by the division and EPA pursuant to Env-A 1211.18;

(z) "Manufacturing process" means any process directly related to the manufacturing of goods and/or supplies, both finished and intermediate, whose operations result in pollutant emissions to the ambient air from process or manufacturing equipment or machinery directly or through exhaust or ventilating systems, including elevated stacks;

(aa) "Maximum allowable emission rate" means the maximum amount of an air contaminant which is allowed to be emitted into the ambient air during a prescribed interval of time;

(ab) "Maximum heat input rate" means the maximum steady state fuel firing rate, in Btus per hour of gross heat input, of fuel burning equipment as determined in the design rating of the equipment manufacturer and the characteristics of the fuel-burning devices;

(ac) "Miscellaneous stationary source" means that portion of a stationary source, as defined in Env-A 101.264, consisting of devices and processes that are:

(1) Unclassifiable; or

(2) Classifiable;

(ad) "Mole" means the specific amount of chemical substance in a system proportional to its number of molecules, calculated as the mass of the chemical divided by its molecular weight;

(ae) "Natural gas" means:

(1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or

(2) Liquid petroleum gas, as defined by the ASTM Standard Specification for Liquid Petroleum Gases, D1835-97;

(af) "Normalized stoichiometric ratio (NSR)" means the actual mole ratio of urea to NO_x divided by the theoretical stoichiometric ratio, which is 0.5 for the reaction between urea and NO_x;

(ag) "NO_x control technique" means a system, design modification, or use of equipment and technology to reduce NO_x emissions to the ambient air from NO_x-emitting devices or processes, including combustion modifications, low-NO_x burners, overfire air systems, low excess air systems, flue gas recirculation, natural gas reburn, burners out of service, fuel switching, selective catalytic reduction, selective non-catalytic reduction, or other device or procedure approved pursuant to Env-A 1211.18;

(ah) "Oxides of nitrogen (NO_x)" means all oxides of nitrogen, except nitrous oxide, as measured in accordance with test methods specified in Env-A 800 and approved by EPA;

(ai) "Ozone season" means the period between May 1 and September 30, inclusive;

(aj) "Power outage" means that normally available sources of electrical energy are unavailable due to circumstances beyond the control of the customer(s) of the power supplier(s);

(ak) "RACT order" means a written order, providing for inventories and emission limits for NO_x-emitting devices or processes and RACT-compliance procedures and schedules, issued by the division to a miscellaneous stationary source or a stationary source seeking alternative RACT emission limits pursuant to Env-A 1211.18;

(al) "Rated brake horsepower (bhp)" means the brake horsepower rating specified by the manufacturer and listed on the nameplate;

(am) "Regenerative cycle combustion turbine" means any stationary gas or oil-fired turbine which recovers heat from the turbine exhaust gases to preheat inlet combustion air to the turbine;

(an) "Repowering" means the replacement or conversion of an existing emissions unit with a new or converted unit which results in lower emission rates of NO_x;

(ao) "Rich burn engine" means any stationary internal combustion engine that is not a lean burn engine;

(ap) "Simple cycle combustion turbine" means any stationary gas or oil-fired turbine which does not recover heat from the turbine exhaust gases to preheat the inlet combustion air to the turbine, heat water or generate steam;

(aq) "Shaker grate or vibrating grate" means a grate that mechanically oscillates or vibrates during loading of solid fuel to assist in the introduction of the fuel into the combustion zone, and in removing accumulation of fuel particle deposits on the grate surface;

(ar) "Small power production facility" means a power production facility that is designed for or capable of operating at a capacity of less than 30 megawatts and is not a cogeneration facility;

(as) "Stationary combustion turbine" means any simple cycle combustion turbine, regenerative cycle combustion turbine, or any combustion turbine portion of a combined cycle steam/electric generating system that is not self-propelled, but which can be mounted on a vehicle for portability;

(at) "Stationary grate" means a grate that is permanently affixed during normal boiler operation;

(au) "Stationary internal combustion engine" means any internal combustion engine that operates as a stationary source, but which can be mounted on a vehicle for portability;

(av) "Steam electric boiler" means a steam generating unit, as defined in (aw), below, that is constructed and operated for the purpose of supplying more than one-third of its potential electrical output to any utility power distribution system for sale which is located at a cogeneration or small power production facility;

(aw) "Steam generating unit" means a device that combusts any fuel or byproduct/waste to produce steam or to heat water or any other heat transfer medium;

(ax) "Stoker" means a furnace design that incorporates a feeding mechanism, fuel distribution and ash residue collection system for the purpose of introducing solid fuel into the combustion zone of the furnace by feeding the fuel onto a grate;

(ay) "Tangential firing" means a boiler firing design where the burners and air nozzles are mounted in each corner of the furnace chamber where the vertical furnace walls meet. Both the fuel and air are directed from the furnace corners along a line tangential to a circle lying in a horizontal plane of the furnace;

(az) "Theoretical potential emissions" means the quantity of nitrogen oxides that could be emitted by a source, prior to the application of add-on controls, based on either of the following:

(1) Continuous operation of 8760 hours per year at the maximum heat input rate of the source; or

(2) Hours of operation, process conditions, or both that are limited by the conditions of a federally enforceable permit;

(ba) "Traveling grate" means a grate designed to move at a constant velocity during the loading of solid fuel to assist in the introduction of fuel into the combustion zone;

(bb) "Unclassifiable process or device" means any process or device that emits NO_x but is not included in any of the categories listed in Env-A 1211.01(b) through (l);

(bc) "Utility boiler" means a steam generating unit that is constructed and operated for the purpose of supplying more than one-third of its potential electrical output capacity to any utility power distribution system for sale, except for steam electric boilers, as defined in (av), above; and

(bd) "Wet bottom" means the boiler has a furnace bottom temperature above the ash melting point and the bottom ash is removed as a liquid.

Source. #5826, eff 5-20-94; amd by #6506-B, eff 5-1-97; ss by #7787, eff 10-31-02; amd by #8234, eff 12-22-04

Env-A 1211.03 Emission Standards for Utility Boilers.

(a) All utility boilers meeting the applicability criteria of Env-A 1211.01(b) shall be subject to the provisions of this section.

(b) Owners or operators of utility boilers in existence on or after May 31, 1995 with heat input rates of at least 5,000,000 Btu per hour but less than 50,000,000 Btu per hour shall:

(1) Before April 1st of each year:

- a. Perform an efficiency test using the test procedures specified in chapter 3, Combustion Efficiency Tables, Taplin, Harry, R., Fairmont Press, 1991; and
- b. Adjust the combustion process of the boiler in accordance with the procedures specified in chapter 5, Combustion Efficiency Tables, Taplin, Harry, R., Fairmont Press, 1991; and

(2) Maintain, in a permanently bound log book the following information:

- a. The date(s) on which:
 1. The efficiency test was conducted; and
 2. The combustion process was last adjusted;
- b. The name(s), title, and affiliation of the person(s) who:
 1. Conducted the efficiency test; and
 2. Made the adjustments;
- c. The NO_x emission concentration, in parts-per-million by volume, dry basis (ppmvd), corrected to 15% oxygen, after the adjustments are made;
- d. The CO emission concentration, in ppmvd, corrected to 15% oxygen, after the adjustments are made;
- e. The opacity readings; and
- f. Any other information required by Env-A 903, Env-A 905, and Env-A 909.

(c) Each utility boiler in existence on or after May 31, 1995 with heat input rates of at least 50,000,000 BTU per hour shall comply with NO_x RACT emission limits, or install the NO_x RACT control technology, specified below:

(1) For wet-bottom boilers firing coal, or any combination of fuels utilizing coal:

- a. For tangential or face-fired boilers, 1.0 lb. per million Btu, based on a 24-hour calendar day average; and
 - b. For cyclone-fired boilers:
 1. With a maximum net power output of less than 320 megawatts at all times after December 31, 1989, 0.92 lb. per million Btu based on a 24-hour calendar day average; or
 2. With a maximum net power output of more than 320 megawatts at any time after December 31, 1989, comply with the NOx RACT emission limits specified in Env-A 1211.03(d) and either:
 - (i) Comply with the NOx RACT limit of 1.40 lb. per million Btu based on a 24-hour calendar day average;
 - (ii) Install, operate, and maintain selective non-catalytic reduction (SNCR) technology with a minimum normalized stoichiometric ratio (NSR) of 1:1; or
 - (iii) Install, operate, and maintain NOx RACT air pollution control equipment or an air pollution control process having equivalent or greater NOx removal efficiency as SNCR, approved by the division and EPA;
- (2) For dry-bottom boilers firing coal, capable of firing coal, oil, or any combination thereof:
- a. For tangential-fired boilers, 0.38 lb. per million Btu, based on a 24-hour calendar day average;
 - b. For face-fired boilers, 0.50 lb. per million Btu, based on a 24-hour calendar day average; and
 - c. For stoker-fired boilers, 0.30 lb. per million Btu, based on a 24-hour calendar day average;
- (3) For boilers firing oil, capable of firing oil, gas, or any combination thereof:
- a. For tangential or face-fired boilers when firing exclusively oil, 0.35 lb. per million Btu, based on a 24-hour calendar day average;
 - b. For face-fired boilers when firing gas or any combination of oil and gas, 0.25 lb. per million Btu based on a 24-hour calendar day average; and
 - c. For tangential-fired boilers when firing gas or any combination of oil and gas, 0.25 lb. per million Btu based on a 24-hour calendar day average;
- (4) For boilers firing exclusively gas, 0.20 lb. per million Btu, based on an hourly average, for tangential or face-fired boilers; and
- (5) For boilers firing wood fuel, capable of firing a combination of wood fuel and oil:
- a. For boilers equipped with a traveling, shaker, or vibrating grate, 0.33 lb. per million Btu, based on a 24-hour calendar day average; and
 - b. For boilers equipped with a stationary grate, 0.25 lb. per million Btu, based on a 24-hour calendar day average.

(d) Wet-bottom cyclone-fired utility boilers shall be limited at all times to the equivalent of the following NOx emission limits:

- (1) For boilers firing coal, or any combination of fuels utilizing coal, 15.4 tons of NOx per 24-hour calendar day; and
- (2) For boilers firing any fuel or combination of fuels excluding coal, 3.8 tons of NOx per 24-hour calendar day.

(e) Nothing in this part shall prohibit the retiring or repowering of a utility boiler at any time after the effective date of this part. Utility boilers shall remain subject to the applicable NOx RACT emission limits specified in this part, regardless of a decision to retire or repower the boiler.

(f) Compliance with the NOx RACT emission standards specified in this section shall be determined by the testing methods specified in Env-A 800 and, if applicable, by a CEM system for NOx required by Env-A 600 or Env-A 1211.21.

(g) The recordkeeping and reporting requirements for utility boilers shall be in accordance with the provisions of Env-A 903, Env-A 905, and Env-A 909, respectively.

Source. #5826, eff 5-20-94; amd by #6506-B, eff 5-1-97; ss by #7787, eff 10-31-02

Env-A 1211.04 Emission Standards for Steam Electric Boilers.

(a) All steam electric boilers that meet the applicability criteria of Env-A 1211.01(c) shall be subject to the provisions of this section.

(b) Owners or operators of steam electric boilers with heat input rates of at least 5,000,000 Btu per hour but less than 50,000,000 Btu per hour shall:

- (1) Before April 1st of each year:
 - a. Perform an efficiency test using the test procedures specified in chapter 3, Combustion Efficiency Tables, Taplin, Harry, R., Fairmont Press, 1991; and
 - b. Adjust the combustion process of the boiler in accordance with the procedures specified in chapter 5, Combustion Efficiency Tables, Taplin, Harry R., Fairmont Press, 1991; and
- (2) Maintain, in a permanently bound log book or other format approved by the director, the following information:
 - a. The date(s) on which:
 1. The efficiency test was conducted; and
 2. The combustion process was last adjusted;
 - b. The name(s), title and affiliation of the person(s) who:
 1. Conducted the efficiency test; and
 2. Made the adjustments;

- c. The NO_x emission concentration, in ppmvd, corrected to 15% oxygen, after the adjustments are made;
- d. The CO emission concentration, in ppmvd, corrected to 15% oxygen, after the adjustments are made;
- e. The opacity readings; and
- f. Any other information required by Env-A 903, Env-A 905, and Env-A 909.

(c) Steam electric boilers in existence on or after May 31, 1995 with heat input rates of at least 50,000,000 Btu per hour but less than 100,000,000 Btu per hour shall comply with the NO_x RACT emission limits, or install the NO_x RACT control technology, specified in Env-A 1211.05(c), for the applicable fuel type and fuel-firing design.

(d) Steam electric boilers in existence on or after May 31, 1995 with heat input rates of 100,000,000 Btu per hour or more shall comply with the NO_x RACT emission limits, or install the NO_x RACT control technology, specified in Env-A 1211.05(d), for the applicable fuel type and fuel-firing design.

(e) Compliance with the NO_x RACT emission standards specified in this section shall be determined by the testing methods specified in Env-A 800 and, if applicable, by a CEM system for NO_x required by Env-A 600 or Env-A 1211.21.

(f) The recordkeeping and reporting requirements for steam electric boilers shall be in accordance with the provisions of Env-A 903, Env-A 905, and Env-A 909, respectively.

Source. #5826, eff 5-20-94; amd by #6506-B, eff 5-1-97; ss by #7787, eff 10-31-02

Env-A 1211.05 Emission Standards for Industrial Boilers.

(a) All industrial boilers that meet the applicability criteria of Env-A 1211.01(d) shall be subject to the provisions of this section.

(b) Owners or operators of industrial boilers with heat input rates of at least 5,000,000 Btu per hour but less than 50,000,000 Btu per hour shall:

- (1) Before April 1st of each year:
 - a. Perform an efficiency test using the test procedures specified in chapter 3, Combustion Efficiency Tables, Taplin, Harry, R., Fairmont Press, 1991; and
 - b. Adjust the combustion process of the boiler in accordance with the procedures specified in chapter 5, Combustion Efficiency Tables, Taplin, Harry R., Fairmont Press, 1991; and
- (2) Maintain, in a permanently bound log book the following information:
 - a. The date(s) on which:
 - 1. The efficiency test was conducted; and
 - 2. The combustion process was last adjusted;
 - b. The name(s), title and affiliation of the person(s) who:
 - 1. Conducted the efficiency test; and

2. Made the adjustments;

- c. The NO_x emission concentration, in ppmvd, corrected to 15% oxygen, after the adjustments are made;
- d. The CO emission concentration, in ppmvd, corrected to 15% oxygen, after the adjustments are made;
- e. The opacity readings; and
- f. Any other information required by Env-A 903, Env-A 905, and Env-A 909.

(c) Industrial boilers in existence on or after May 31, 1995 with heat input rates of at least 50,000,000 Btu per hour but less than 100,000,000 Btu per hour shall comply with the NO_x RACT emission limits, or install the NO_x RACT control technology, specified below:

(1) For dry-bottom boilers firing coal, capable of firing coal, oil or any combination thereof:

- a. For tangential-fired boilers, 0.38 lb. per million Btu, based on a 24-hour calendar day average;
- b. For face-fired boilers, 0.50 lb. per million Btu, based on a 24-hour calendar day average; and
- c. For stoker-fired boilers, 0.30 lb. per million Btu, based on a 24-hour calendar day average;

(2) For tangential or face-fired boilers firing exclusively oil:

- a. For boilers firing No. 2 fuel oil, 0.12 lb. per million Btu, based on an hourly average; and
- b. For boilers firing No. 4, 5, or 6 fuel oil:
 - 1. 0.30 lb. per million Btu, based on a 24-hour calendar day average;
 - 2. Install, operate, and maintain low NO_x burners (LNB); or
 - 3. Install, operate and maintain air pollution control equipment or an air pollution control process having equivalent or greater NO_x removal efficiency as LNB as approved by the division and EPA pursuant to Env-A 1211.18;

(3) For tangential or face-fired boilers firing a combination of oil and gas:

- a. When firing exclusively gas:
 - 1. 0.10 lb. per million Btu, based on an hourly average;
 - 2. Install, operate, and maintain LNB; or
 - 3. Install, operate, and maintain air pollution control equipment or an air pollution control process having equivalent or greater NO_x removal efficiency as LNB as approved by the division and EPA pursuant to Env-A 1211.18;
- b. When firing exclusively oil:

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1. When firing No. 2 fuel oil, 0.12 lb. per million Btu, based on an hourly average; and
2. When firing No. 4, 5, or 6 fuel oil:
 - (i) 0.30 lb. per million Btu, based on a 24-hour calendar day average;
 - (ii) Install, operate, and maintain LNB; or
 - (iii) Install, operate, and maintain air pollution control equipment or an air pollution control process having equivalent or greater NOx removal efficiency as LNB as approved by the division and EPA pursuant to Env-A 1211.18;
- c. When firing a combination of oil and gas:
 1. When firing gas and No. 2 fuel oil, 0.12 lb. per million Btu, based on an hourly average; and
 2. When firing gas and No. 4, 5, or 6 fuel oil:
 - (i) 0.30 lb. per million Btu, based on a 24-hour calendar day average;
 - (ii) Install, operate, and maintain LNB; or
 - (iii) Install, operate, and maintain air pollution control equipment or an air pollution control process having equivalent or greater NOx removal efficiency as LNB as approved by the division and EPA pursuant to Env-A 1211.18;
- (4) For boilers firing exclusively gas:
 - a. 0.10 lb. per million Btu, based on an hourly average;
 - b. Install, operate, and maintain LNB; or
 - c. Install, operate, and maintain air pollution control equipment or an air pollution control process having equivalent or greater NOx removal efficiency as LNB as approved by the division and EPA pursuant to Env-A 1211.18; and
- (5) For boilers firing wood fuel, or a combination of wood fuel and oil:
 - a. For boilers equipped with a traveling, shaker, or vibrating grate, 0.33 lb. per million Btu, based on a 24-hour calendar day average; and
 - b. For boilers equipped with a stationary grate, 0.25 lb. per million Btu based on a 24-hour calendar day average.
- (d) Industrial boilers in existence on or after May 31, 1995 with heat input rates of 100,000,000 Btu per hour or more shall comply with the NOx RACT emission limits, or install the NOx RACT control technology, specified below:
 - (1) For wet-bottom boilers firing coal, or any combination of fuels utilizing coal:
 - a. For tangential or face-fired boilers, 1.0 lb. per million Btu, based on a 24-hour calendar day average; and

b. For cyclone-fired boilers, 0.92 lb. per million Btu, based on a 24-hour calendar day average;

(2) For dry-bottom boilers firing coal, capable of firing coal, oil, or any combination thereof:

a. For tangential-fired boilers, 0.38 lb. per million Btu, based on a 24-hour calendar day average;

b. For face-fired boilers, 0.50 lb. per million Btu, based on a 24-hour calendar day average; and

c. For stoker-fired boilers, 0.30 lb. per million Btu, based on a 24-hour calendar day average;

(3) For boilers firing oil, capable of firing oil, gas, or any combination thereof:

a. For tangential or face-fired boilers when firing exclusively oil:

1. 0.30 lb. per million Btu, based on a 24-hour calendar day average;

2. Install, operate, and maintain LNB; or

3. Install, operate, and maintain air pollution control equipment or an air pollution control process having equivalent or greater NO_x removal efficiency as LNB as approved by the division and EPA pursuant to Env-A 1211.18;

b. For face-fired boilers when firing gas, or any combination of oil and gas, 0.25 lb. per million Btu based on a 24-hour calendar day average; and

c. For tangential-fired boilers when firing gas, or any combination of oil and gas, 0.25 lb. per million Btu based on a 24-hour calendar day average;

(4) For boilers firing exclusively gas:

a. For tangential or face-fired boilers, 0.10 lb. per million Btu, based on an hourly average;

b. Install, operate and maintain LNB; or

c. Install, operate and maintain air pollution control equipment or an air pollution control process having equivalent or greater NO_x removal efficiency as LNB as approved by the division and EPA pursuant to Env-A 1211.18; and

(5) For boilers firing wood fuel, capable of firing a combination of wood fuel and oil:

a. For boilers equipped with a traveling, shaker, or vibrating grate, 0.33 lb. per million Btu, based on a 24-hour calendar day average; and

b. For boilers equipped with a stationary grate, 0.25 lb. per million Btu, based on a 24-hour calendar day average.

(e) Compliance with the NO_x RACT emission standards specified in this section shall be determined by the testing methods specified in Env-A 800 and, if applicable, by a CEM system for NO_x required by Env-A 600 or Env-A 1211.21.

(f) The recordkeeping and reporting requirements for industrial boilers shall be in accordance with the provisions of Env-A 903, Env-A 905, and Env-A 909, respectively.

Source. #5826, eff 5-20-94; amd by #6506-B, eff 5-1-97; ss by #7787, eff 10-31-02

Env-A 1211.06 Emission Standards for Combustion Turbines.

(a) All combustion turbines meeting the applicability criteria of Env-A 1211.01(e) shall be subject to the provisions of this section.

(b) All combustion turbines operating as emergency generators or load shaving units shall be subject to the provisions of Env-A 1211.11 or Env-A 1211.13.

(c) Combustion turbines in existence on or after May 31, 1995 shall be limited at all times to hourly average NOx RACT emission limits specified below:

(1) For combined and regenerative cycle combustion turbines:

- a. For gas-fired turbines without oil back-up, 42 ppmvd, corrected to 15% O₂, or 0.155 lb. per million Btu;
- b. For gas-fired turbines with oil back-up, the more stringent of:
 1. When operating on gas, 42 ppmvd, corrected to 15% O₂, or 0.155 lb. per million Btu; or
 2. When operating on oil, 65 ppmvd, corrected to 15% O₂, or 0.253 lb. per million Btu; and
- c. For oil-fired turbines, 65 ppmvd, corrected to 15% O₂, or 0.253 lb. per million Btu;

(2) For simple cycle combustion turbines:

- a. For gas-fired turbines without oil back-up, 55 ppmvd, corrected to 15% O₂, or 0.203 lb. per million Btu;
- b. For oil-fired turbines, 75 ppmvd, corrected to 15% O₂, or 0.292 lb. per million Btu; and
- c. For gas-fired turbines with oil back-up:
 1. When operating on gas, 55 ppmvd, corrected to 15% O₂, or 0.203 lb. per million Btu; and
 2. When operating on oil, 75 ppmvd, corrected to 15% O₂, or 0.292 lb. per million Btu.

(d) On and after November 1, 2002, all gas-fired turbines constructed after May 27, 1999, shall be limited to an hourly average NOx RACT emission limit of 25 ppmvd, corrected to 15% O₂, or 0.092 lb. per million Btu, when operating on gas.

(e) Compliance with the NOx RACT emission standards specified in this section shall be determined by the testing methods specified in Env-A 800 and, if applicable, by a CEM system for NOx required by Env-A 600 or Env-A 1211.21.

(f) The recordkeeping and reporting requirements for combustion turbines shall be in accordance with the provisions of Env-A 903, Env-A 905, and Env-A 909, respectively.

Source. #5826, eff 5-20-94; EXPIRED 5-20-00

New. #7787, eff 10-31-02

Env-A 1211.07 Emission Standards for Stationary Internal Combustion Engines.

(a) All stationary internal combustion engines meeting the applicability criteria of Env-A 1211.01(f) shall be subject to the provisions of this section.

(b) All stationary internal combustion engines operating as emergency generators or load shaving units shall be subject to the provisions of Env-A 1211.11 or Env-A 1211.13.

(c) Stationary internal combustion engines in existence on or after May 31, 1995 shall be limited at all times to hourly average NOx RACT emission limits no greater than those specified below:

(1) For rich burn internal combustion engines, 1.5 grams per bhp-hr for gas-fired units; and

(2) For lean burn internal combustion engines:

a. For gas-fired units, 2.5 grams per bhp-hr; and

b. For oil-fired units, 8.0 grams per bhp-hr, or 2.44 lb. per million Btu.

(d) Compliance with the NOx RACT emission standards specified in this section shall be determined by the testing methods in Env-A 800 and, if applicable, by a CEM system for NOx required by Env-A 600 or Env-A 1211.21.

(e) The recordkeeping and reporting requirements for stationary internal combustion engines shall be in accordance with the provisions of Env-A 903, Env-A 905, and Env-A 909, respectively.

Source. #5826, eff 5-20-94; EXPIRED 5-20-00

New. #7787, eff 10-31-02

Env-A 1211.08 Emission Standards for Asphalt Plant Dryers.

(a) For the purpose of this section, the following definitions shall apply:

(1) "Batch type asphalt plant" means an asphalt plant where equipment external to the rotary dryer is used to mix the aggregate and asphalt cement or other binder;

(2) "Drum mix type asphalt plant" means an asphalt plant where the asphalt cement or other binder is added to the aggregate while the aggregate is in the rotary dryer; and

(3) "Rotary dryer" means a cylinder which rotates about a fixed axis and through which hot gases are passed for the purpose of removing moisture from solid material.

(b) All asphalt plant rotary dryers meeting the applicability criteria of Env-A 1211.01(g) shall be subject to the provisions of this section.

(c) Asphalt plant rotary dryers in existence on or after May 31, 1995 shall be limited at all times to hourly average NOx RACT emission limits no greater than 0.12 lb. per ton of asphalt produced, or 0.429 lb. per million Btu, for batch type and drum mix type asphalt plants.

(d) Compliance with the NO_x RACT emission standards specified in this section shall be determined by the testing methods in Env-A 800 and, if applicable, by a CEM system for NO_x required by Env-A 600 or Env-A 1211.21.

(e) The recordkeeping and reporting requirements for asphalt plant dryers shall be in accordance with the provisions of Env-A 903, Env-A 905, and Env-A 909, respectively.

Source. #5826, eff 5-20-94; EXPIRED 5-20-00

New. #7787, eff 10-31-02

Env-A 1211.09 Emission Standards for Incinerators.

(a) All incinerators meeting the applicability criteria of Env-A 1211.01(h) shall be subject to the provisions of paragraphs (c) through (e) of this section.

(b) All incinerators combusting sewage sludge shall be subject to the provisions of Env-A 1211.14.

(c) Incinerators in existence on or after May 31, 1995 shall be limited at all times to 24-hour calendar day average NO_x RACT emission limits no greater than 0.53 lb. per million Btu.

(d) Compliance with the NO_x RACT emission standards specified in this section shall be determined by the testing methods in Env-A 800 and, if applicable, by a CEM system for NO_x required by Env-A 600 or Env-A 1211.21.

(e) The recordkeeping and reporting requirements for incinerators shall be in accordance with the provisions of Env-A 903, Env-A 905, and Env-A 909, respectively.

Source. #5826, eff 5-20-94; EXPIRED 5-20-00

New. #7787, eff 10-31-02

Env-A 1211.10 Emission Standards for Wallboard Manufacturing Facilities.

(a) All wallboard dryers, calcining mills, calciners, and gypsum rock dryers meeting the applicability criteria of Env-A 1211.01(i) shall be subject to the provisions of this section.

(b) Wallboard dryers, calcining mills, calciners, and gypsum rock dryers in existence on or after May 31, 1995 shall comply with the NO_x RACT emission limits, or install the NO_x RACT control technology, specified below:

(1) For wallboard dryers, calcining mills, calciners, and gypsum rock dryers firing natural gas:

- a. 0.10 lb. per million Btu, based on an hourly average;
- b. Install, operate, and maintain LNB; or
- c. Install, operate, and maintain air pollution control equipment or an air pollution control process having equivalent or greater NO_x removal efficiency as LNB as approved by the division and EPA pursuant to Env-A 1211.18; and

(2) For wallboard dryers, calcining mills, calciners, and gypsum rock dryers firing fuel oil:

- a. When firing #2 fuel oil:
 1. 0.10 lb. per million Btu, based on an hourly average;

2. Install, operate, and maintain LNB; or
3. Install, operate, and maintain air pollution control equipment or an air pollution control process having equivalent or greater NO_x removal efficiency as LNB as approved by the division and EPA pursuant to Env-A 1211.18; and

b. When firing #4, #5, or #6 fuel oil:

1. 0.30 lb. per million Btu, based on a 24- hour calendar day average;
2. Install, operate, and maintain LNB; or
3. Install, operate, and maintain air pollution control equipment or an air pollution control process having equivalent or greater NO_x removal efficiency as LNB as approved by the division and EPA.

(c) Compliance with the NO_x RACT emission standards specified in this section shall be determined by the testing methods in Env-A 800 and, if applicable, by a CEM system for NO_x required by Env-A 600 or Env-A 1211.21.

(d) The recordkeeping and reporting requirements for wallboard manufacturing facilities shall be in accordance with the provisions of Env-A 903, Env-A 905, and Env-A 909, respectively.

Source. #5826, eff 5-20-94; EXPIRED 5-20-00

New. #7787, eff 10-31-02

Env-A 1211.11 Emission Standards and Control Options for Emergency Generators.

(a) Owners or operators of emergency generators meeting the applicability criteria of Env-A 1211.01(j) shall be subject to the provisions of this section.

(b) Each emergency generator subject to the provisions of this section shall be limited to less than 500 hours of operation per year during any consecutive 12-month period by an enforceable permit issued by the division.

(c) Stationary combustion turbines in existence on or after May 31, 1995 operating as emergency generators shall:

(1) Adjust the combustion process of the combustion turbine, before April 1st of each year, in accordance with the following:

- a. Inspect the burner, the flame pattern from the burner, and the systems which control the air-to-fuel ratio;
- b. Adjust the air-to-fuel ratio in accordance with the results of the inspections performed;
- c. Determine the effect of the adjustment upon NO_x emissions;
- d. Re-adjust the air-to-fuel ratio based on results of the previous adjustment performed to minimize total NO_x emissions; and
- e. Confirm that NO_x emissions from the equipment or source operation do not cause an exceedance of any maximum allowable emission rate for NO_x or any other state and federally regulated air pollutant, or any opacity standard specified in Env-A 2000;

- (2) Maintain, in a permanently bound log book or other format approved by the director, the following information:
 - a. The date on which the combustion process was last adjusted;
 - b. The name, title, and affiliation of the person who made the adjustments;
 - c. The NO_x emission concentration, in ppmvd, corrected to 15% oxygen, after the adjustments are made;
 - d. The CO emission concentration, in ppmvd, corrected to 15% oxygen, after the adjustments are made;
 - e. The opacity readings; and
 - f. Any other information required by Env-A 903, Env-A 905 and Env-A 909;
 - (3) Install, operate, and maintain an elapsed time meter for each engine to indicate, in cumulative hours, the elapsed engine operating time for the previous 12 months;
 - (4) Determine the hours of operation for each engine for the previous 12-month period on a monthly basis; and
 - (5) Notify the division in writing in the event that the hours of operation exceed 500 hours for any consecutive 12-month period.
- (d) Stationary internal combustion engines in existence on or after May 31, 1995 operating as emergency generators shall at all times:
- (1) Set and maintain the ignition timing of the engine 4 degrees retarded relative to standard timing, provided that the ignition timing shall not be retarded beyond the point that:
 - a. The CO emission concentration increases beyond 100 ppmvd, corrected to 15% oxygen;
 - b. The turbocharger speed is increased beyond the maximum operating speed recommended by the manufacturer;
 - c. The exhaust port temperature increases beyond the manufacturer's recommended maximum operating temperature; or
 - d. The opacity of the emissions from the engine exhaust is equal to or greater than 20% opacity;
 - (2) Install, operate, and maintain an elapsed time meter for each engine to indicate, in cumulative hours, the elapsed engine operating time for the previous 12 months;
 - (3) Determine the hours of operation for each engine for the previous 12-month period on a monthly basis;
 - (4) Maintain records to certify that the ignition timing of the engine has been inspected and adjusted at least once every 3 years; and
 - (5) Notify the division in writing in the event that the hours of operation exceed 500 hours for any consecutive 12-month period.

(e) If the hours of operation of any emergency generator exceed 500 hours for any consecutive 12-month period, the emergency generator shall immediately become subject to the requirements of Env-A 1211.06 or Env-A 1211.07 for the appropriate device type and fuel type.

(f) The emissions from emergency generators shall be included in the calculation of both the actual and theoretical potential emissions from a stationary source.

(g) The recordkeeping and reporting requirements for emergency generators shall be in accordance with the provisions of Env-A 903, Env-A 905, and Env-A 909, respectively.

Source. #5826, eff 5-20-94; amd by #6506-B, eff 5-1-97; ss by #7787, eff 10-31-02

Env-A 1211.12 Emission Standards for Auxiliary Boilers.

(a) An auxiliary boiler meeting the applicability criteria of Env-A 1211.01(k) shall be subject to the provisions of this section.

(b) An owner or operator of an auxiliary boiler with a heat input rate of at least 5,000,000 Btu per hour but less than 50,000,000 Btu per hour shall comply with the requirements of Env-A 1211.05(b).

(c) An auxiliary boiler in existence on or after May 31, 1995, with a heat input rate of at least 50,000,000 Btu per hour, shall be limited at all times to a NO_x RACT emission limit no greater than 0.20 lb. per million Btu based on a 24-hour calendar day average, regardless of the type of fuel burned.

(d) The emissions from all auxiliary boilers shall be included in the calculation of both the actual and theoretical potential emissions from the stationary source.

(e) Compliance with the NO_x RACT emission standards specified in this section shall be determined by the testing methods in Env-A 800 and, if applicable, by a CEM system for NO_x required by Env-A 600 or Env-A 1211.21.

(f) The recordkeeping and reporting requirements for auxiliary boilers shall be in accordance with the provisions of Env-A 903, Env-A 905, and Env-A 909, respectively.

Source. #5826, eff 5-20-94; EXPIRED 5-20-00

New. #7787, eff 10-31-02; ss by #8234, eff 12-22-04

Env-A 1211.13 Emission Standards for Load Shaving Units.

(a) All load shaving units meeting the applicability criteria of Env-A 1211.01(l) shall be subject to the provisions of this section.

(b) Stationary combustion turbines in existence on or after May 31, 1995 operating as load shaving units shall be limited at all times to NO_x RACT emission limits no greater than 0.90 lb. per million Btu heat input based on an hourly average for any type of fuel.

(c) Stationary internal combustion engines in existence on or after May 31, 1995 operating as load shaving units shall be limited at all times to hourly average NO_x RACT emission limits specified below:

- (1) For rich burn internal combustion engines, 2.0 grams per bhp-hr for gas-fired units; and
- (2) For lean burn internal combustion engines:

- a. For gas-fired units, 3.0 grams per bhp-hr; and
- b. For oil-fired units, 9.0 grams per bhp-hr, or 2.74 lb. per million Btu.

(d) If the actual NO_x emissions from any load shaving unit exceed 50 tons during any consecutive 12-month period, the load shaving unit shall immediately become subject to the requirements of Env-A 1211.06 or Env-A 1211.07 for the appropriate device type and fuel type.

(e) The emissions from all load shaving units shall be included in the calculation of both the actual and theoretical potential emissions from the stationary source.

(f) Compliance with the NO_x RACT emission standards specified in this section shall be determined by the testing methods in Env-A 800 and, if applicable, by a CEM system for NO_x required by Env-A 600 or Env-A 1211.21.

(g) The recordkeeping and reporting requirements for load shaving units shall be in accordance with the provisions of Env-A 903, Env-A 905, and Env-A 909, respectively.

Source. #5826, eff 5-20-94; EXPIRED 5-20-00

New. #7787, eff 10-31-02

Env-A 1211.14 Emission Standards and Control Options for Miscellaneous Stationary Sources. Owners or operators of miscellaneous stationary sources meeting the applicability criteria of Env-A 1211.01(m) shall:

(a) Initiate and implement a study of RACT control options consisting of a detailed examination of technological and economic feasibility of available NO_x control techniques for all classifiable and unclassifiable NO_x-emitting sources, devices or processes; and

(b) Apply for and obtain from the division a RACT order in accordance with the provisions of Env-A 1211.18.

Source. #5826, eff 5-20-94; EXPIRED 5-20-00

New. #7787, eff 10-31-02

Env-A 1211.15 Alternative RACT Emission Limits.

(a) Alternative RACT emission limits, other than those specified in Env-A 1211.03 through Env-A 1211.13, shall be allowable for all NO_x emitting processes and devices regulated under this part, except for wet-bottom cyclone fired utility boilers subject to the RACT emission limits and/or technology requirements specified in Env-A 1211.03(d), provided that the source owner or operator performs an alternative RACT analysis that conclusively demonstrates, in accordance with the provisions of (b) and (c), below, that the NO_x RACT emission limit(s) specified or the NO_x RACT air pollution control technology in Env-A 1211.03 through Env-A 1211.13 is not reasonably available considering technological and economical feasibility.

(b) An owner or operator of a stationary source seeking alternative NO_x RACT emission limits shall:

(1) Undertake and submit to the division, within 120 days of the date when the source becomes subject to this part, a study of RACT control options consisting of a detailed examination of the technological and economic feasibility of all available NO_x control techniques for all applicable NO_x emitting sources, devices or processes for which alternative RACT emission limits are sought; and

(2) Obtain a RACT order from the division in accordance with the provisions of this section.

(c) An owner or operator of a utility boiler operating as a stationary source seeking alternative NOx RACT emission limits shall:

(1) Undertake and submit to the division within 120 days of the date when the source becomes subject to this part, a study of RACT control options consisting of a detailed examination of the technological and economic feasibility of available NOx control techniques for all applicable NOx-emitting sources, devices or processes for which alternative RACT emission limits are sought, including, but not be limited to, an evaluation of the technical and economic feasibility of the following NOx control options:

- a. Low-NOx burners;
- b. Overfire air;
- c. Flue gas recirculation;
- d. Natural gas reburn;
- e. Burners out of service;
- f. Use of alternative fuels;
- g. Selective catalytic reduction; and
- h. SNCR; and

(2) Obtain a RACT order from the division in accordance with the provisions of this section.

Source. #5826, eff 5-20-94; EXPIRED 5-20-00

New. #7787, eff 10-31-02

Env-A 1211.16 Multiple Sources Under Common Ownership.

(a) For the purposes of this section, "bubble" means an option taken by the source to impose controls that are more stringent than RACT level on certain emitting units while simultaneously imposing controls that are less stringent than RACT level on other emitting units, including the option of no controls on such units, in order to achieve the same amount of emission reduction required by the SIP in a more cost effective manner for the source.

(b) Emissions averaging shall be allowed for NOx emissions from 2 or more stationary sources subject to the provisions of this section.

(c) All stationary sources to be included in the emissions averaging shall be:

- (1) Located in New Hampshire; and
- (2) Under the control of a single owner.

(d) Compliance with the NOx RACT weighted average allowable emission rate as calculated in (i), below, shall be based on the weighted average actual NOx emissions from the units that are operating on a given day.

(e) Emissions averaging, including allowable emission averaging periods, shall be done in accordance with the provisions of EPA's emissions trading policy, as described in 51 FR 43814 and 51 FR 43850.

(f) Emission reduction credits generated for the purpose of emission averaging shall be real, surplus, permanent, quantifiable, federally enforceable and transferable within the bubble within a given calendar year, and shall conform to the provisions set forth in 40 CFR 51.165, as revised June 28, 1989, and RSA 125-J and any administrative rules promulgated thereunder.

(g) Emissions averaging shall be enforced by means of federally enforceable conditions contained in permits issued by the division as a source-specific SIP revision, or federally enforceable permits issued by the division or EPA, for all stationary sources to be included in the averaging.

(h) The recordkeeping and reporting requirements for emission averaging shall be in accordance with the provisions of Env-A 903, Env-A 905, and Env-A 909, respectively. In any event, recordkeeping and reporting shall include a summary of the emissions, the emissions reduction credit transfers, the applicable transfer ratios, and the adjusted emissions, after transfer, of each affected stationary source.

(i) All stationary sources to be included in the emissions averaging shall comply with the equation specified in Env-A 1211.17 for each 24-hour calendar day.

(j) Emission reduction credits generated from reductions at any stationary source included in emissions averaging may be used for compliance with (i), above, by other stationary source(s) within the bubble. However, at those sources located in nonattainment areas, 1.2 units of credits shall be necessary to offset 1.0 unit of emissions.

(k) All stationary sources or devices to be included in the emissions averaging shall:

(1) Calculate daily emissions:

a. For those sources or devices generating credits for the purpose of emissions averaging, based on the installation of CEMs in accordance with the provisions of Env-A 1211.21 and Env-A 800; or

b. For those sources or devices not required to install CEMs under the provisions of Env-A 1211.21 or Env-A 800, based on:

1. The worst case emission rate(s) for the device(s) or source(s) established through stack testing performed in accordance with the provisions of Env-A 800 and approved by EPA; and

2. The hours of operation measured in accordance with a method approved by EPA; and

(2) Comply with the recordkeeping and reporting requirements specified in Env-A 903, Env-A 905 and Env-A 909.

Source. #5826, eff 5-20-94; EXPIRED 5-20-00

New. #7787, eff 10-31-02

Env-A 1211.17 Emissions Averaging Equation.

(a) "E" means the total allowable emissions from all facilities included in the emissions averaging in pounds per day.

(b) "A1, A2, ..., An" means the applicable emission limit for each unit of production, such as lb/MMBtu, as specified in this part.

(c) "B1, B2, ..., Bn" means the maximum number of units of production per day, such as MMBtu/day, based on the maximum gross heat input rate of each device included in the emissions averaging.

(d) To calculate the total allowable emissions from all facilities included in the emissions averaging in pounds per day, the owner or operator shall multiply A1 times B1, A2 time B2, and so forth, and then sum the products, as in the formula below:

$$E = (A1 \times B1) + (A2 \times B2) + \dots + (An \times Bn)$$

Source. #5826, eff 5-20-94; EXPIRED 5-20-00

New. #7787, eff 10-31-02

Env-A 1211.18 Procedure for Issuance of a RACT Order.

(a) For the purpose of this section, the following definitions shall apply:

(1) "Determination of insufficiency" means a written determination by the division that the documentation submitted by a source applicant, pursuant to the requirement for a feasibility study of RACT options as required by Env-A 1211.15(b) and (c), is inadequate for the division to issue a RACT order; and

(2) "Determination of sufficiency" means a written determination by the division that the documentation submitted by a source applicant, pursuant to the requirement for a feasibility study of RACT options as required by Env-A 1211.15(b) and (c), is adequate for the division to issue a RACT order.

(b) The owner or operator of any miscellaneous stationary source subject to the provisions of Env-1211.14 or any source, device or process seeking alternative RACT emission limits under Env-A 1211.15 shall submit the following to the division within 120 days of the date when the source becomes subject to this part:

- (1) An inventory of all NOx-emitting sources, devices or processes at the facility;
- (2) The maximum NOx-emitting capacity of each NOx-emitting source, device or process;
- (3) The actual amount of NOx emitted based on heat input, fuel consumption or equivalent method acceptable to the division, for each day during the previous calendar year, from each affected NOx-emitting source, device or process at the facility;
- (4) A detailed study of RACT options;
- (5) An examination of the technical and economical feasibility of available NOx control techniques including the technique of using ERCs or DERs as a compliance option, for all NOx-emitting sources, devices or processes;
- (6) An examination of the feasibility of changing to low-NOx emitting processes;
- (7) The control option selected, stating emission limits, monitoring, recordkeeping and reporting procedures, and test methods to demonstrate compliance;

(8) The amount of NO_x that is proposed to be controlled from each NO_x-emitting source, device or process identified in the inventory required by (1), above; and

(9) A schedule for implementation, which shall indicate the commitment dates for the major increments of progress toward compliance, including:

- a. Completion of engineering;
- b. Submission of air pollution permit application;
- c. Awarding of contract;
- d. Initiation of construction;
- e. Completion of construction;
- f. Initial compliance testing;
- g. Submission of compliance tests reports; and
- h. Final compliance with emission or control requirements of this part.

(c) For miscellaneous stationary sources subject to the provisions of Env-1211.14 or sources, devices or processes seeking alternative RACT emission limits in accordance with the provisions of Env-A 1211.15, the division shall:

(1) Issue written notification of its determination to the owner or operator of the source or device within 60 days of receipt of documentation submitted pursuant to Env-A 1211.15(b) or (c), and (d), below, containing either:

- a. An initial determination of sufficiency; or
- b. An initial determination of insufficiency, together with a request for all additional information necessary to issue an alternative RACT determination;

(2) In the event that an initial determination of sufficiency is made, issue a final determination of sufficiency and present to EPA and the owner or operator of the affected source, device, or process a proposed RACT order within 60 days of the initial determination of sufficiency, containing:

- a. An inventory of all NO_x-emitting sources, devices, or processes;
- b. Emission limits for all NO_x-emitting sources, devices, or processes;
- c. A schedule requiring compliance with the RACT emission limits that contains the elements described in (b)(9), above;
- d. Procedures for determining initial compliance with the emission limits;
- e. Procedures for assessing continuous compliance with the emission limits; and
- f. Recordkeeping and reporting requirements in accordance with the provisions of Env-A 903, Env-A 905, and Env-A 909, respectively;

(3) In the event that an initial determination of insufficiency is made:

a. Issue a final determination of sufficiency and present to EPA and the owner or operator of the affected source, device, or process a proposed RACT order containing those items listed in (2), above, within 60 days of the receipt of those items submitted pursuant to (1)b., above; or

b. Terminate the permit process and issue a final determination of insufficiency if a complete response to the initial determination of insufficiency is not received from the owner or operator of the affected source, device or process within 60 days of receipt of notification of the division's initial determination of insufficiency;

(4) Within 30 days of the issuance of a proposed RACT order, issue a public notice of an oral hearing on a proposed RACT order, once in a newspaper of daily statewide circulation and once in a newspaper in the general locality of the affected source;

(5) Conduct an oral hearing on the proposed RACT order not less than 30 days after the issuance of the public notice;

(6) Issue a final RACT order to the owner or operator of the affected source, device, or process within 60 days of the date of the public hearing on the proposed RACT order;

(7) Submit to EPA a revision to the State Implementation Plan (SIP) within 60 days of the issuance of a final RACT order; and

(8) Upon issuance of the final RACT order, issue a permit to the owner or operator of the affected source, device, or process which incorporates all of the terms and conditions of the final RACT order.

(d) The owner or operator of any source, device, or process for which a final RACT order has been issued shall comply with all of the terms and conditions of the final RACT order immediately upon the issuance of such order by the division.

Source. #5826, eff 5-20-94; EXPIRED 5-20-00

New. #7787, eff 10-31-02

Env-A 1211.19 Seasonal Control of NOx Emissions. A device or stationary source subject to this part may utilize seasonal emission control techniques in order to comply with NOx RACT, subject to the following conditions:

(a) Any device or stationary source using post-combustion NOx air pollution control equipment to comply with NOx RACT during the ozone season shall continue operation of said equipment during the remainder of the calendar year;

(b) The allowable annual mass NOx emission rate, in tons per year, shall be less than or equal to the annual NOx mass emission rate that would be calculated by multiplying the actual annual production rate, for example Btu per year, by the applicable emission limit, for example lbs. NOx per million Btu, specified in Env-A 1211.03 through Env-A 1211.13. The applicable emission limit shall be the limit which would apply considering all fuels in use prior to December 31, 1990;

(c) Annual NOx emissions limits shall be based on the lower of the actual or allowable NOx emissions for calendar year 1990, unless NOx emissions and operational data are submitted to and approved by the division demonstrating that NOx emissions from the source for calendar year 1990 are not representative of normal operations. In no case shall NOx emissions data for years prior to calendar year 1989 be used to represent normal operations for the purpose of emissions averaging. The division shall use EPA-approved

methods and procedures as specified in 40 CFR § 51.165 for determining whether the data submitted is adequate to demonstrate that NO_x emissions for calendar year 1990 are not representative of normal operations;

(d) Emissions averaging to meet NO_x RACT requirements on a seasonal basis shall be allowable in accordance with the following requirements:

- (1) A 24-hour calendar day average NO_x mass emission limit shall be established for the ozone season based on the applicable limit specified in Env-A 1211.03 through Env-A 1211.13, considering all fuels in use prior to December 31, 1992;
- (2) A 24-hour calendar day average NO_x mass emission limit shall be established for the remainder of the year based on the uncontrolled emission rate of the device determined by CEM data or stack test data;
- (3) An allowable average annual NO_x RACT mass emission limit shall be established based on the criteria specified in (b), above;
- (4) The sum of the NO_x mass emissions during the ozone season and the NO_x mass emissions during the remainder of the calendar year shall be less than or equal to the lesser of the annual NO_x RACT mass emissions that would have been allowed under Env-A 1211.03 through Env-A 1211.13 or the annual NO_x mass emissions allowed under the requirements of Env-A 100 through Env-A 3800;
- (5) Emissions from replacement power sources shall be calculated by multiplying the actual production rate for the device, for example Btu per hour, by the allowable NO_x mass emission rate for the device, for example lb. NO_x per million Btu;
- (6) For multiple sources under common ownership using the bubble specified in Env-A 1211.16, the applicable emission limit for each unit of production referred to in the formula in Env-A 1211.17 shall be established by the division in accordance with the applicable provisions of this section; and
- (7) All stationary sources using seasonal controls shall:
 - a. Install CEMs to the extent required by Env-A 1211.21 and Env-A 800;
 - b. Calculate daily emissions in accordance with the provisions of Env-A 1211.21 and part Env-A 800;
 - c. Calculate annual emissions in accordance with the provisions of this section; and
 - d. Comply with the recordkeeping and reporting requirements specified in Env-A 903, Env-A 905 and Env-A 909.

Source. #5826, eff 5-20-94; amd #6838, eff 8-27-98

New. #7787, eff 10-31-02

Env-A 1211.20 NO_x Testing. Stationary sources subject to this part shall comply with the testing requirements specified in Env-A 800.

Source. #5826, eff 5-20-94; EXPIRED 5-20-00

New. #7787, eff 10-31-02

Env-A 1211.21 NOx Monitoring Requirements. The department shall require installation, operation, maintenance, and quality assurance testing of a CEM system for NOx which meets all of the requirements specified in Env-A 800 if any of the following conditions exist:

(a) A source utilizes air pollution control equipment in order to maintain compliance with a NOx emission limit, and continuous emission monitoring is determined by the department to be necessary to ensure that this emission limit is not exceeded and that the control equipment is performing correctly;

(b) A stationary source is subject to the CEM provisions of Env-A 800;

(c) A stationary source or device generates emissions credits for the purpose of emission averaging pursuant to Env-A 1211.16; or

(d) A stationary source or device uses seasonal emission control techniques, in accordance with Env-A 1211.19, in order to comply with NOx RACT.

Source. #5826, eff 5-20-94; amd by #6506-B, eff 5-1-97; ss by #7787, eff 10-31-02; ss by #8234, eff 12-22-04

NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES

Appendix

Rule	State Statute	Federal Statute
Env-A 1204	RSA 125-C:4, I(a) & (d), RSA 125-C:6, II & XIV, RSA 125-C:11	42 U.S.C. Section 7410, 7502(c) & 7511c
Env-A 1204.02(h) Env-A 1204.03(co) Env-A 1204.43 & 1204.44	RSA 125-C:4, I(a) & (n); RSA 125-C:6, II & XVII;	42 U.S.C. Sections 7410, 7502(c), & 7511c
Env-A 1211	RSA 125-C:4, I(a);	42 U.S.C. Sections 7410, 7502(c) & 7511c